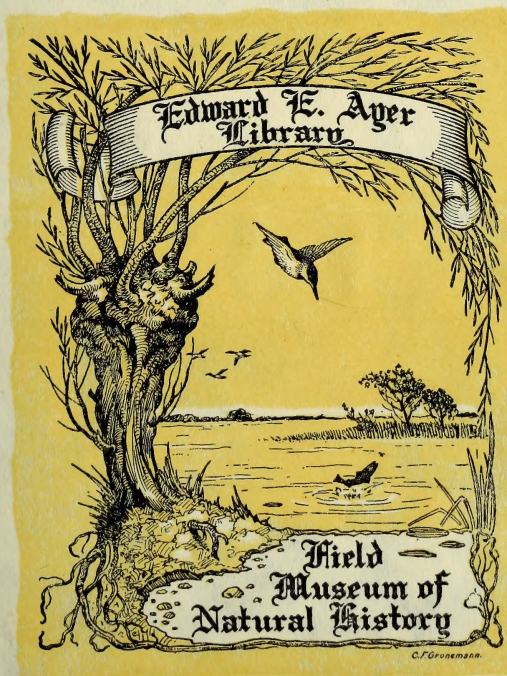


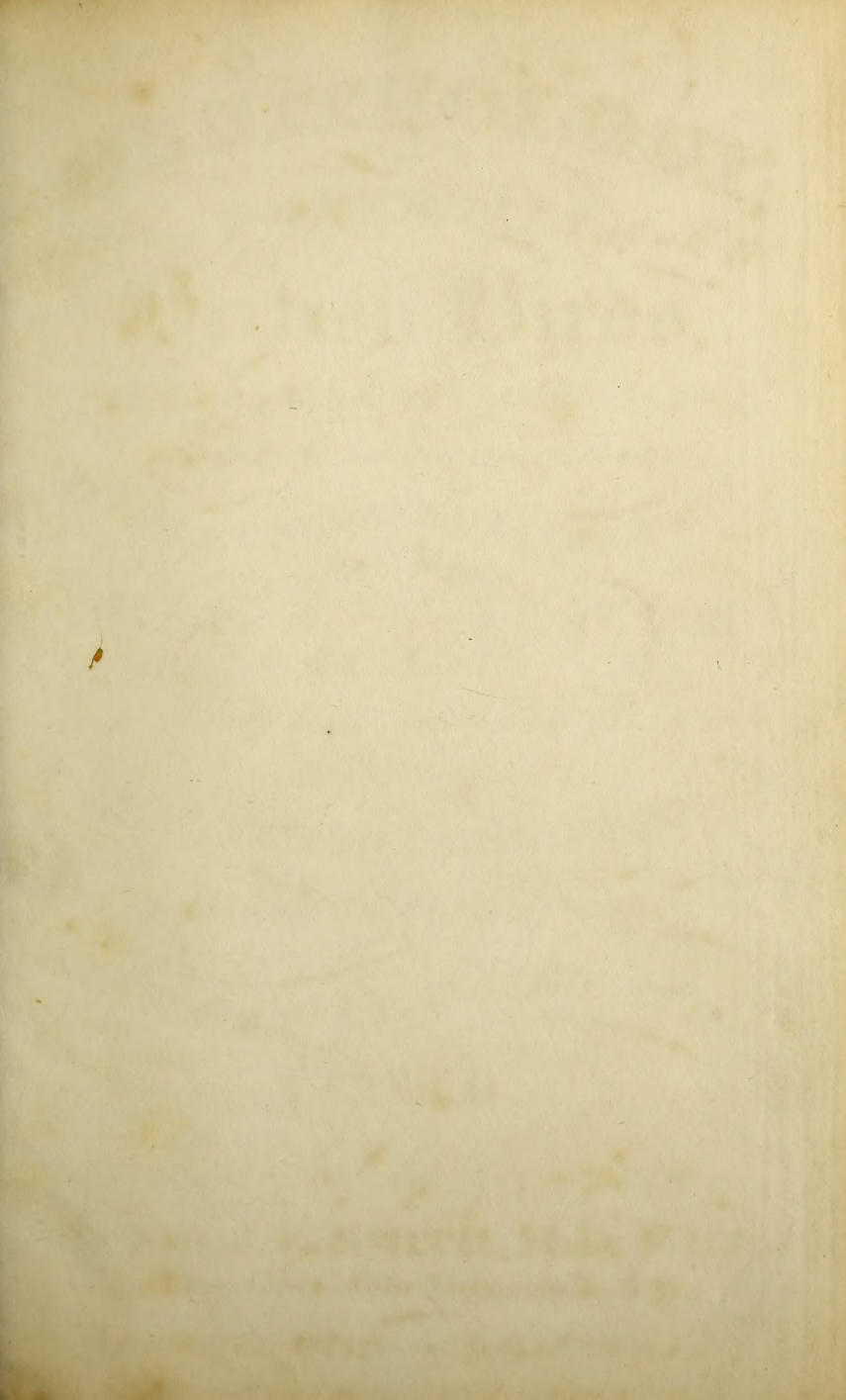
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W. H. Mullens.



C. F. Gronemann





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PROVINCIAL

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THE

British.
ORNITHOLOGICAL
Containing **PORTRAITS** of all the
British Birds,
including those of Foreign Origin,
which have become domesticated;
DRAWN, ENGRAVED & COLOURED
after Nature,
by
J. HUNT,
with descriptions compiled from the
works of the most
Esteemed Naturalists,
& arranged according to the
LINNEAN CLASSIFICATION.

Vol. II

Inscribed by Permission
To SIR J.E. SMITH, M.D. F.R.S.
and President of the Linnaean Society.

NORWICH; 1815 Printed by BACON & CO
for the Proprietor & may be had of the Booksellers.

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BRITISH BIRDS

ORDER II.

PICÆ—PIES.

The characters of this order are :

Bill, sharp-edged, convex above.

Legs, short, strong.

Feet, formed for walking, perching, or climbing.

Body, toughish, impure.

Food, various filthy substances.

Nest, in trees ; the *male* feeds the female while she is sitting.

They live in pairs.

This *order* may be said to form that *link* which connects the rapacious with the gallinaceous or poultry tribes. It comprehends a numerous and irregular class of birds, widely differing from each other in their habits, appetites, and manners, as

well as in their form, size, and appearance, so that hardly any characters, however general, will apply to them all.

Gmelin ranges them in the following manner.

Genus 5, *Psittacus*, the Parrot*. Genus 6, *Ramphastos*, the Toucan. Genus 7, *Momotus*, the Motmot. Genus 8, *Sy-throps*. Genus 9, *Buceros*, the Hornbill. Genus 10, *Buphaga*, the Beef-eater. Genus 11, *Crotophaga*, the Ani. Genus 12, *Glaucopis*, the Wattle-bird. Genus 13, *Corvus*, the Crow. Genus 14, *Coraci*, as the Roller. Genus 15, *Oriolus*, the Oriole. Genus 16, *Gracula*, the Grakle. Genus 17, *Paradisea*, the Birds of Paradise. Genus 18, *Trogon*, the Curucui. Genus 19, *Bucco*, the Barbet. Genus 20, *Cuculus*, the Cuckow. Genus 21, *Yunx*, the Wryneck. Genus 22, *Picus*, the Woodpecker. Genus 23, *Sitta*, the Nuthatch. Genus 24, *Todus*, the Tody. Genus 25, *Alcedo*, the Kingfisher. Genus 26, *Galbula*, the Jacamar. Genus 27,

* Those printed in Italics are not to be found in the British Isles.

Merops, the Bee-eater. Genus 28, Upupa, the Hoopoe. Genus 29, Certhia, the Creeper. Genus 30, Trochilus, the Humming-bird.

PICÆ.

GENUS XIII.

CORVUS—CROW.

This Genus is distinguished by the following characters.

Bill, convex, sharp-edged.

Nostrils, covered with setaceous recumbent feathers.

Tongue, cartilaginous, bifid.

Feet, ambulatory.

This Genus of birds contains the Ravens, the Crows, the Magpies, and the Jays. Most of them occur in every climate, and are consequently well known. They are very prolific, clamorous, and in general sufficiently social to unite in flocks. They build in general their nests in trees, and the number of young they produce are five or six. They feed promiscuously on animal and vegetable substances. On the approach of an enemy or a stranger, they act in concert, and drive him away with

repeated attacks. On these occasions they are as bold as they are cunning, in avoiding the smallest appearance of real danger. Most of the species may be taught to articulate a few words and are in general fond of every toy or glittering substance; on which account they are rather dangerous inmates, as instances are recorded of their taking away money and other valuables, and likewise of houses having been set on fire, by their seizing pieces of burning wood and coals, which they carried to their hiding places.

Magpies, Jackdaws, and others of this *genus* settle on the backs of sheep and cattle to pick out ticks and other insects, and will strip the cow, the ass, or the sheep, of their hair or wool, as a lining for their own nests.

CORVUS CORAX.**RAVEN.**

Black; back, blueish black; tail, roundish.

Corvus Corax, Lin. Gme.

Le Corbeau, Buffon.

Raven, Pen. Lath. Bew. Shaw, Mont. Bing.

PROVINCIAL.**GREAT CORBIE CROW.**

Different specimens of this bird are found to vary in size, but in general they may be said to measure about two feet in length, and the alar extent four feet.

Both sexes agree in plumage.

The male and female pair for life.

The Raven may be considered as the earliest breeder among the British birds, being usually in a forward state of incubation by the end of February. In this country it generally prefers the largest trees for that purpose, but at times has been known

to breed in our rocky cliffs, where it chooses the most inaccessible places for that purpose.

In Greenland, and Iceland also, it commonly builds its nest in the holes of rocks. This nest is composed of sticks, and lined with wool, hair, and various other substances. When built on trees it is most usually placed in the fork of the larger branches. The Raven lays five or six eggs, of a blueish green colour, blotched and spotted with brown and ash-colour, somewhat larger than those of the crow.

It has been asserted that there exists a wonderful antipathy between the Raven and the Rook. Mr. Markwick informs us that in the year 1778, as soon as a Raven had built her nest in a tree adjoining a numerous rookery, all the Rooks immediately forsook the spot, and have never returned to build there since. And at the Bishop of Chichester's rookery, likewise at Broomham, near Hastings, upon a Raven building her nest upon one of the trees, all the Rooks forsook the spot, though, in this instance, they returned to their haunts

in the autumn, and built their nests there the succeeding year.

It is no very difficult task to account for this apparent antipathy. For the Raven as is well known, will scarcely suffer any bird whatever, to come within a quarter of a mile of its nest, being very fierce and determined in defending it. Besides which, it will seize the young Rooks from their nests, to feed its own offspring, of which fact, E. Lambert, Esq. in a letter to the Linnæan society, says "he was an eye-witness to, at Mr. Seymers; and that there was no peace in the rookery night nor day, till one of the old Ravens was killed and the nest destroyed. What this gentleman says in the same letter, may perhaps be adduced in proof of the longevity of the Raven. "A Raven has built in a large beech tree of mine, time out of mind, I can trace it back above an hundred years." Though it may here be proper to remark, that a simple succession of nests in the same spot, is by no means to be implicitly relied on, as an argument of the age of Birds, because it can never

prove the *identity* of the *pair* that build or inhabit them. It is like presuming the the age of a man from his happening to inhabit an old family mansion. Mr. Glover informs us, that he knows an instance of a Starling's nest being invariably built or repaired in the hollow of a solitary ash during six and twenty years, though the *old-ones* were, during that period, frequently shot, and the *eggs* frequently destroyed. And we believe that the same observations are equally applicable to a nest of the Gentil Falcon, which has from time immemorial, been found on Hunstanton Cliffs.

During the time of incubation the female is constantly attended by the male, who not only provides her with abundance of food, but, whenever she leaves the nest, takes her place. The following anecdote related by Mr. White, in his history of Selborne, will fully illustrate the perseverance of this bird in sitting, and the strength of her attachment to her eggs. "On the Blackmoor estate, there is a small wood called Lofels, in the centre of

this grove, there stood an oak, which, though shapely and tall on the whole, bulged out into a large excrescence about the stem. On this a pair of Ravens fixed their residence for such a series of years, that the oak was distinguished by the title of the Raven tree. Many were the attempts of the neighbouring youths to get at this eyry; the difficulty whetted their inclinations, and each was ambitious of surmounting the arduous task. But, when they arrived at the swelling, it jutted out so in their way, and was so far beyond their grasp, that the most daring lads were awed, and acknowledged the undertaking to be too hazardous. So the Ravens built on, nest upon nest, in perfect security, till the fatal day arrived in which the wood was to be levelled. It was in the month of February, when those birds usually sit. The saw was applied to the butt, the wedges were inserted into the opening, the wood echoed to the heavy blows of the beetle or mallet. The tree nodded to its fall, but still the dam sat on. At last, when it gave way, the bird was

flying from her nest : and though her maternal affection deserved a better fate, was whipped down by the twigs, which brought her dead to the ground."

The Raven is a voracious bird, and seems to possess many of the habits of the Vulture. Like that tribe it is patient in hunger, scents carrion afar off, gluts itself in the midst of plenty, retires to a short distance to digest what it has taken, and then returns again. Filth and carrion are its chief food. But it will also suck the eggs of other birds, and feed on earth worms, reptiles, and even shell-fish, when pressed by hunger. It sometimes attacks young rabbits, leverets, ducklings, chickens, &c., and not unfrequently the larger animals, as weakly kids, and lambs, supplying its want of strength and agility by cunning; it plucks out their eyes, and then fixing on the back of its victim, tears off the flesh deliberately.

In proof of the latter fact, "it is said that many of these birds leave the banks of the Thames and go into Romney marsh in Kent, during the lambing season, where

the weak and sickly lambs afford them abundance of food.

Such birds may be distinguished from others of the species, by having their plumage soiled with mud."

This indiscriminating voracity of the Raven, has procured it various treatment: sometimes it has been proscribed as a pernicious animal; sometimes it has been afforded the protection of the law, as useful in extirpating noxious insects.

Landt, in his description of the Feroe Islands, says that, "in order that this destructive bird may be exterminated, every man who is in a condition to go out to fish, must deliver every year the bill of one Raven, or the bills of two crows; or failing these, pay a certain sum to the provincial judge. But all the inhabitants are not equally ready to assist in extirpating the Ravens; as there is a saying in Feroe, that this bird never does any hurt to the farm where it builds its nest. If a man therefore, drives it into his neighbour's premises, it spares the lambs of the latter, but attacks where ever it can, those be-

longing to the former. The Ravens, however, are of some utility to those who have sheep, as they give notice, by their assembling, when one of these animals has fallen down a precipice, so that it can be recovered and carried home to be used as food."

The Rev. G. Low, in his history of the Orkney and Shetland Islands, informs us, "that in hard winters the Raven comes nearer the towns than usual for such a shy bird; then he is frequently seen by the shores, and even within a stone's throw of the houses of Stromness, picking up what garbage, &c., he can find, but retires from us at the return of spring, and betakes himself to the precipices of the hills and rocks, and sometimes to the steeples of the churches, or any ruined building, and there he makes his summer's retreat, levying contributions on all around; far from being so generous in this respect as our country-folks say of the Eagle, who (they tell us) takes but a hen from every house of the parish, and none from those in the neighbourhood of his royal nest."

Its faculty of scent must be very acute ; for in the coldest of the winter days, at Hudson's Bay, when every kind of effluvia is almost instantaneously destroyed by the frost ; Buffaloes and other beasts have been killed where not one of these birds was to be seen, but in a few hours scores of them would gather about the spot to pick up the offal and blood.

In the act of feeding, it shifts its prey from the beak to the feet, and from the feet to the beak alternately.

In clear weather they fly in pairs at a great height, making a deep loud noise, different from the common croaking. During these flights they may frequently be observed to turn as it were upon their backs and fall from a considerable elevation, this is supposed to be occasioned by the bird moving one of its feet in order to scratch its head, which action occasions it to lose its equilibrium.

In every superstitious country the Raven has been deemed an ominous bird, and the harbinger of impending calamities. Grave Historians have described pitched battles

between armies of these and other ravenous birds, and have regarded these combats as foreboding bloody wars kindling among the nations. Even at the present day superstition clothes the character of this bird with sacred awe: many persons, and particularly in the northern parts of Britain, are alarmed and dejected at the noise of its croaking, and look upon any injury offered to it as some forerunner of misfortune. The whole of its powers of divination are limited; however, like those of the other inhabitants of the air, to a greater sensibility as to the changes of the elements, and to the expression of these feelings by certain cries and actions. In those ages when augury formed a part of religion, the Ravens (though bad prophets) could not fail to be birds of vast importance. The fondness of prying into futurity, however dismal may be the prospect, has ever been a natural speculation of the human race. All the various motions of this bird were therefore studied with the most scrupulous attention, the circumstances of its flight and the tones of its

voice, (each of which had its determined significations.) The artifice enriched its inventors, and credulity drew multitudes to their oracles. Some even carried this folly to such lengths, as to eat the heart and entrails of the bird, from the hope of themselves acquiring the spirit of Prophecy. A sort of popular respect is still paid to this bird, from its having been selected to feed the Prophet Elijah, when he fled from the rage of Ahab.

The Raven when taken from the nest, and reared up as a domestic, becomes very familiar, and possesses many qualities that render it highly amusing. Busy, inquisitive, and impudent it goes every where, affronts and drives off the dogs, plays its tricks on the poultry, &c. but with these amusing qualities it blends many vices and defects, like other species belonging to this *genus*, it does not confine itself to petty depredations, but aims at more magnificent plunder. A piece of money, a tea spoon, or a ring, is always a tempting bait to its avarice; these it will slyly seize upon, and, if not watched, will

carry it to its favourite hole. We copy the following anecdote from Montague in confirmation of the above. "We have been assured, by a gentleman of veracity, that his butler having missed a great many silver spoons and other articles, without being able to detect the thief for some time, at last observed a tame Raven with one in his mouth, and watched him to his hiding place, where he found more than a dozen."

A few years since a Raven belonging to a gentleman at Yarmouth, became so tame that it was suffered to go at liberty. A friend to whom we are indebted for the account, assures us that he has frequently seen it when boys have been playing with a ball, watch an opportunity to seize the ball, and having succeeded in the attempt would fly with it unto the roof of a neighbouring house to the great mortification of the boys. At other times it would pick up a hat, and not unfrequently fly with it to the top of an ensign-staff erected near its master's house, where it would sometimes leave the hat; at length it grew so

mischievous that its owner was obliged to part with it.

The following anecdote of the Raven, as related in Daniels' Rural Sports, ought not to be omitted.

"In 1808 a Raven was kept at the Red Lion, Hungerford; a Gentleman's Chaise in turning into the yard, ran over the leg of his Newfoundland Dog, and while examining the injury done, Ralph was evidently a concerned spectator; when the dog was tied up, under the manger with the horses, Ralph attended upon him with particular kindness. This was so marked, that it was observed to the hostler, who said that he had been bred from his pinfeather in intimacy with a Dog; that the affection between them was mutual; and that all the neighbourhood had been witnesses of the acts of fondness they had conferred upon each other. This Dog also had his leg broke, and during the long time he was confined, Ralph waited upon and carried him provisions daily; by accident the hostler shut the stable door, and Ralph was deprived of the company

of his friend the whole night, but in the morning, the bottom of the door was found so pecked, that Ralph would, in another hour, have made his own entrance-port."

The Raven may be called a general inhabitant of the Globe appearing to be equally common in the northern and southern regions of both hemispheres.

Pied and white varieties of this species are sometimes found.

The Natives of Greenland eat the flesh, and make a covering for themselves with the skins of these birds, which they wear next their bodies.—The tail feathers are also held in very high estimation by several of the Indian Tribes, and considered as the noblest Plume which can decorate the heads of their Chiefs and Warriors.

CORVUS CORONE.**CARRION CROW.**

Entirely black, with a violet-blue gloss ;
tail rounded, feathers pointed at the ends.

Corvus Corone, Lin. Gme.

La Corneille, Buffon.

Carrion Crow, Pin. Lath. Mont. Bew.
Shaw.

PROVINCIAL.

GOR-CROW, MINDEN-CROW, BLACK-
NEBBED CROW.

The Carrion Crow is similar in its habits, colour, and external appearance, to the Raven, but much less in size, measuring about eighteen inches in length, and two feet two inches in the expansion of its wings.

The female may be distinguished from the male by its plumage, which is of inferior lustre.

These birds live together in pairs, and spend the greater part of the summer in



Corvus Corax. - Common Raven.



forests and woods, from whence they occasionally emerge to procure subsistence for themselves and infant brood. Their nest is generally placed in the forked branch of a tree; it is composed of sticks plastered with earth, on which are laid various soft materials, such as wool and hair. In this nest the female deposits four or five eggs of a greenish colour, spotted with dusky and ash-colour.

Buffon observes that "their chief food in the spring, is Partridges' eggs, of which they are very fond, and are so dexterous as to pierce them, and carry them on the point of their beak to their young."

During the time of incubation, the male supplies the female with food. These birds, like the Raven, feed on putrid flesh of all sorts, as well as on worms, insects, and various kinds of grain; like that bird, they will sometimes pick out the eyes of lambs when just dropped. They also do much mischief in rabbit warrens, by killing and devouring the young rabbits, and the young of chickens and ducks do not

always escape their attacks. They have been seen to make a pounce at a pigeon, and to kill it at a blow. They haunt the sea shores in search of dead fish, which may have been cast up by the tide, or thrown away by fishermen. Periwinkles, muscles, and the larger shell-fish, seem to be among their dainties; of which, as soon as this bird has found one, it flies up almost perpendicularly into the air, with the fish in its beak, and there lets it fall on the stones, in order to break its shell. The bird quickly follows the falling booty, and devours it at its leisure.

The same method of procuring food, is practised by other birds of this *genus*.

The following anecdote related by Montagu, proves a most astonishing instinctive faculty in the Crow, "We observed, (says he) two Crows by the sea shore, busy in removing some small fish (the refuse of a fisherman's net) from the edge of the flowing tide, and conveying them one by one beyond the usual flux of the tide, or just above high water mark,

and they deposit them under the larger stones or broken rocks, after having amply satisfied the immediate calls of hunger."

These Birds, as we have before stated, keep in pairs all the year; and seldom congregate, unless to regale on some carcase; or in winter to roost; or when an individual of the species is in danger. "Taking a morning's ride, (says the author of the Ornithological Dictionary) several Crows were heard in a neighbouring field to be very clamorous; judging that they had seen something that induced them to give the alarm call, and assemble all their congeners within hearing, we rode to the spot, where we arrived just in time to witness a feat of activity and intrepidity, that afforded inexpressible delight. Many and repeated pounces were made at some diminutive animal on the ground, but what, the little grass there was, prevented us from seeing: however, in a few minutes, a small creature was observed to meet a Crow in its descent, who had been more bold than the rest, and made a nearer approach; and a consequent struggle en-

sued on the ground, but of short duration. At this crisis we approached, and found that a weasel had seized a Crow by the neck, and had killed it."

The above anecdote proves that the Crow is not deficient in courage. It is also well known, that it will suffer neither the Kite, Buzzard, nor Raven to approach its nest with impunity.

It is supposed that there are more birds of this species bred in England, than in any other country of Europe. In the reign of Henry the 8th, Crows had become so numerous, and were thought to be so prejudicial to the farmer, that (according to Pennant) "they were considered an evil worthy parliamentary redress: an act was passed for their destruction, in which Rooks and Choughs were included. Every hamlet was to provide nets for ten years; and all the inhabitants were obliged at certain times to assemble during that space, to consult of the best means to extirpate them."

They are also very numerous in some parts of North America, and are said to be

very destructive to new sown maize, &c. so much so that the inhabitants of Pennsylvania and New Jersey allowed a reward of three or four pence a head for destroying them. This law was very soon repealed on account of the expence which it brought upon the treasury. In Sweden the Carrion Crow is so rare, that Linnæus speaks of only a solitary instance of its having been killed in that Country.

The following are singular modes said to be adopted in some countries for catching these birds, but of the value and merits of which the reader may best judge for himself.—A Crow is fastened alive on its back firmly to the ground by means of a brace on each side, at the origin of the wings. In this painful position the bird struggles and screams; the rest of its species within hearing flock to its cries, with the intention probably, of affording relief. But the prisoner, grasping at every thing within reach to extricate himself from his unpleasant situation, seizes with his beak and claws, which are left at liberty, all that

come near him, the bird-catcher who had placed himself at some distance waiting the event, approaches and takes the prey thus delivered to him.

They are likewise to be caught with cones of paper baited with raw flesh. Into this cone the bird introduces his head to devour the bait, which is placed near the bottom, the paper being besmeared with bird-lime sticks to the feathers of the neck, and he remains hooded. Unable to get rid of this bandage, which covers his eyes entirely, the bird rises almost perpendicularly into the air, the better to avoid striking against any object; till, quite exhausted, he sinks down near the spot from whence he mounted.

As these birds are in general very shy and difficult to be got near by a person with a gun, the following method has been sometimes practised with success. A living Crow is to be put into a cage, and exposed in the fields; his call generally attracts the attention of others in the neighbourhood, who flock round the cage,

and whilst occupied by their imprisoned friend, are rendered almost heedless of the gunner's approach.

Corn likewise, steeped in a solution of coculus indicus will destroy numbers of them: care being taken to seize them before the intoxicating quality of the drug goes off.

Pied and white varieties of this species are not unfrequent.

CORVUS FRUGILEGUS.**ROOK.**

Black ; front, somewhat cinereous ; tail, roundish.

Corvus Frugilegus, Lin. Gme.

Le Fréux ou la Frayonne, Buffon.

Rook, Pen. Lath. Shaw, Bew. Mont.

The Rook is something larger than the Carrion Crow, but its plumage is more glossy; and the nostrils, and root of the bill naked, or, at least, covered only by a white scurf. This scabrous appearance is attributed by authors to the bird thrusting its beak into the earth in search of its food, but as we have remarked the same appearance in birds brought up tame, and unaccustomed to that mode of procuring food, we do not hesitate to ascribe it to an original peculiarity.

The Rook is also furnished with a small pouch, situate at the root of the tongue, which will contain a quantity of food.



Corvus fraxedolus

This repository is used by the male for furnishing a supply to the female during the time of incubation, and both parents use the same means in support of their offspring; at which season the pouch may be easily observed distended with food as they arrive from the fields to their nest.

The female lays four or five eggs, similar to those of the Crow, of a greenish colour, spotted and blotched with dusky.

The Rook is a gregarious species, being sometimes seen in such numbers as apparently to darken the air in their flight. They build their nests in general on high trees, close to each other, selecting a large clump of the tallest for this purpose. When a colony is once settled it is permanent, and the birds never quit the establishment they have formed till some injury or insult banishes them from the place. During the time of building frequent engagements take place with foreigners, as they are very jealous of intrusions from other societies. At the commencement of spring, the rookery, which during the continuance of winter, seemed to have been deserted,

or at least only guarded by five or six individuals, like old soldiers in a garrison, now begins to be once more frequented, and in a short time all the bustle and hurry of business is fairly commenced. In these societies they appear to establish a kind of legal constitution, by which all intruders are excluded from coming to live among them, and none are permitted to build but acknowledged natives. Many internal dissensions and civil broils also occur. Some unhappy couples are not even permitted to finish any nest, till the rest have completed their buildings; for as soon as they get a few sticks together, a party of thieves and plunderers come and demolish the whole. It is therefore adopted as a measure of precaution, that one of the pair is generally stationed to keep guard, while the other goes abroad for materials. From the instant, however, that the female begins to lay her eggs, all hostilities are at an end; and those that a little time before treated her so rudely, now no longer venture to molest her. It ought to be observed that the old birds are

already provided with nests, as those which were before used, with a little trimming and dressing, answer the same purpose for several years; it is also not unusual to see them regularly visited, and even repaired in autumn. The great difficulty of building lies upon the younger birds, who have had no nest before; after their young have taken wing, they forsake their nest-trees, but return to them again in October to roost; but as winter comes on seek the more sheltered lodging of some neighbouring wood; but generally first assemble at some usual place, and then fly off together.

It appears that every distinct colony of Rooks has its appropriate territory, or as a fox-hunter would term it its *country*, and that these bounds are carefully observed. It appears also, that very nearly the same *range* or *beat* is traversed by them every day, allowing for such deviations as arise from having their haunts molested, and their ordinary course interrupted by *guns* and *Crow-keepers*.

In a note received from the Rev. G. Glover, relating to this species, he observes, "that the sea coast has great attraction for them, though they are not often seen in any very considerable numbers on the beach. A very numerous colony of Rooks, inhabiting the woods at Gunton, which is about four miles distant from the sea, I have carefully marked for twelve years, uniformly returning home a few minutes before sun-set, from the same point of destination, viz. the coast, and making the church of South-Repps the land mark by which they steered. What has much surprised me is, that this course has been continued through the very height of the breeding-season, as well as at other times, though in diminished numbers; and that the only interruption to it has been during the very severe days of winter, when they were driven by that necessity which acknowledges neither rule nor law, to seek their subsistence in farm yards, or to plunder the corn stacks in the fields."

The evening return of the Rook to its roosting-place, is strikingly pourtrayed by the Poet, in the following lines.

“Retiring from the Downs, where all day long
 “They pick their scanty fare a black’ning train
 “Of loitering Rooks thick urge their weary flight,
 “And seek the shelter of the grove.”

Of the aversion which these birds entertain against intruders, some idea may be formed from the following anecdote related by Bewick. “In the year 1783, a pair of Rooks, after an unsuccessful attempt to establish themselves in a rookery at no great distance from the Exchange, (Newcastle) were compelled to abandon the attempt, and take refuge on the spire of that building; and although constantly interrupted by other Rooks, they built their nest on the top of the vane, and brought forth their young, undisturbed by the noise of the populace below them; the nest and its inhabitants were consequently turned about by every change of the wind. They returned and built their nest every year on the same place till 1793, after which the spire was taken down.”

A remarkable circumstance, with respect to these birds, occurred at Dallam Tower, in Westmoreland, the seat of Daniel Wilson, Esq. "There were two groves adjoining to the park; one of which, for many years, had been resorted to by a number of Herons, which there built and bred; the other was one of the largest rookeries in the country. The two tribes lived together for a long time without any disputes. At length the trees occupied by the Herons, consisting of some very fine old oaks, were cut down in the spring of 1775, and the young brood perished by the fall of the timber. The parent birds immediately set about preparing new habitations, in order to breed again; but, as the trees in the neighbourhood of their old nests were only of a late growth, and not sufficiently high to secure them from the depredations of boys, they determined to effect a settlement in the Rookery. The Rooks made an obstinate resistance; but, after a very violent contest, in the course of which many of the Rooks, and some of their antagonists,

lost their lives, the Herons at last succeeded in their attempt, built their nests, and brought out their young."

"The next season the contest was renewed, and terminated like the former, by the victory of the Herons. Since that time peace seems to have been agreed upon between them; the Rooks having relinquished possession of that part of the grove which the Herons occupy; the Herons confine themselves to those trees they first seized upon, and the two species live together in as much harmony as they did before their quarrel."

A few years since a similar circumstance occurred near Acle in this county.

In the spring, and before the female has laid her eggs, the male begins to feed her. It is a pleasing sight to see her receive his bounty with a fondling tremulous voice, and fluttering wings, and all the little blandishments that are expressed by the young while in a helpless state. This gallant deportment of the male is continued through the whole season of incubation.

After the Rook has reared its progeny so far, that they are enabled to accompany the parent in his flight, they are led forth in small companies into the fields, and there taught, amidst the various tribes of insects, the mode of future subsistence; and it is at this season that our trees and fields most re-echo with their notes, and at which also the varied tones of young and old form that concert which the Philosopher has admired, and the Poet celebrated. Among all the sounds of animated nature, (says Bingley) "few are more pleasing than the *cawing* of Rooks; they have but two or three notes, and when the Rook attempts a *solo* we cannot praise his song, but when he performs in *concert*, which is his chief delight, these notes although rough in themselves, being intermixed with those of the multitude, have, as it were, all their rough edges worn off, and become harmonious; especially when softened in the air, where the bird chiefly performs."

Dr. Perceval relates the following interesting anecdote of these birds. "A

large colony of Rooks had subsisted many years in a grove on the banks of the river Irwell, near Manchester. One serene evening I placed myself within the view of it, and marked with attention the various labours, pastimes, and evolutions of this crowded society. The idle members amused themselves with chasing each other through endless mazes; and in their flight, they made the air resound with an infinitude of discordant noises. In the midst of these playful exertions it unfortunately happened that one Rook, by a sudden turn, struck his beak against the wing of another, the sufferer instantly fell into the river. A general cry of distress ensued. The birds hovered with every expression of anxiety over their distressed companion. Animated by their sympathy, and, perhaps, by the language of counsel known to themselves, he sprang into the air, and, by one strong effort, reached the point of a rock which projected into the water. The joy became loud and universal; but, alas! it was soon changed into notes of lamentation; for the poor wounded

bird, in attempting to fly towards his nest, dropped into the river and was drowned, amidst the moans of his whole fraternity."

Besides insects, Rooks feed on different kinds of grain, thus causing some inconvenience to the farmer; but this seems greatly repaid by the good they do to him, in extirpating the maggots of the most destructive of the beetle tribe, amongst which may be particularly reckoned the grub of the cock-chaffer and dor-beetle. The wire-worm also appears to be one of the favourite articles of their food. The farmer therefore will find it his interest to encourage the breed of Rooks, rather than destroy them, as the means of best freeing his lands from these most formidable enemies to the roots of corn and grass.

The Rook is a native of most of the European regions. In England it remains during the whole year; but both in France and Silesia migrates. It is a singular circumstance, that the Island of Jersey should be entirely without Rooks: particularly when it is asserted on undoubted authority, that they frequently fly over from Britain into France.

Young Rooks when flayed and put into pies are said to be good eating.

White, pied, and cream-coloured varieties sometimes occur; and a gentleman of our acquaintance had last year, (1816) a young one of a light ash-colour, most beautifully mottled all over with black, and the quill and tail feathers elegantly barred. This curiosity he was naturally anxious to keep, when behold, upon the bird moulting, all its mottled plumage vanished entirely away, it became a jet black Rook, and in this state was suffered to join his sable tribe as a fit companion in the fields.

CORVUS CORNIX.
HOODED CROW.

Dark ash; head, throat; wings and tail black.

Corvus Cornix, Lin. Gme.

La Corneille, Mantelee, Buffon.

Hooded Crow, Pen. Lath. Bew. Mont. Shaw.

PROVINCIAL.

ROYSTON CROW, KENTISH CROW, DUN CROW, SCARE CROW, BUNTING CROW.

The Hooded Crow measures twenty-two inches in length, and two feet three inches in breadth. It is a migratory species, (at least) in England, arriving in October and departing again in the spring. But according to Pennant they continue in some parts of Scotland the whole year, and build their nests indiscriminately in all kinds of trees. Their nest and eggs are described to be similar to those of the Carrion Crow, they appear to be much attached to their offspring.



Hunt.

Cornix Cornix. — Flooded Crow.



The Hooded Crow is the only genuine species of *Crow* to be met with either in the Orkney or Shetland Isles; the Rook and Carrion Crow not being found there.

The Rev. G. Low in his natural history of those Islands, informs us that they are very numerous there through the whole year; and in the breeding season are very destructive to chickens. He likewise says that "they are more familiar than the Corby, (the Orkney name for the Raven), and continue about the houses, till the calls of love draw them out with the rest of the feathered tribe to their summer retreats. "Its nest is composed of sticks, placed in the hollow of a rock, (trees we have none fit), and lined with softer materials, such as wool, pieces of cloth, and in a word, every thing it can pick up. It lays from four to six eggs, which are green, spotted with black as those of the other species of the Crow kind mostly are."

In those Islands they meet in the spring in vast flocks, and after flying about in this manner for a few days, separate into pairs, and betake themselves to the mountains.

The Hooded Crow has a shriller voice than the Carrion Crow, and is much more mischievous than that bird, not only picking out the eyes of weakly lambs, but even those of horses when entangled in the bogs; but for want of other food will eat the mountain-berries. In Sweden says the translator of the *systema naturæ* "they purge the land of those myriads of *larvæ* which would at times destroy the fruits of the earth."

In its manners this bird resembles both the Crow and Rook, assembling in small flocks, and feeding on grain, worms, and insects; but occasionally on carrion and other prey. The toes of this bird are broad and flat, to enable it to walk without sinking on marshy and muddy ground. Numbers of them are to be seen near the sea coast, where the various animal-matter thrown up by the tide affords a supply of food. They are likewise to be found in considerable numbers upon the Downs, or in the champaign parts of the country.

It is a singular circumstance in the habits of these birds, that they are gene-

rally seen sitting with their heads facing the wind.

A striking feature in the migration of this bird is,* that though it does not breed in England, yet it continues here till long after the Rook has begun her incubation, and that in many counties it is never seen at all. We believe but very rarely even at Royston, from which place it derives its epithet. The eastern coast is the part where it occurs most frequently.

The Hooded Crow is an inhabitant of many parts of Europe, but appears to have been totally unknown to the ancients.

They breed in vast numbers in the Feroe Isles.

* We are informed that a pair of these birds built a nest and reared their young during the season of 1916, in the neighbourhood of King's Lynn.

CORVUS MONEDULA.
JACKDAW.

Black; hind-head, hoary; front, wings, and tail black.

Corvus Monedula, Lin. Gme.

Le Choucas, Buffon.

Jackdaw, Pen. Lath. Bew. Mont. Shaw.

PROVINCIAL.
CADAW, CHOUGH-DAW.

This well-known species of Crow remains in England the whole year, but in some parts of the Continent they are migratory. It measures thirteen inches in length.

Both sexes agree in plumage.

The nest is composed of sticks, and lined with wool and other soft materials. In this nest the female deposits five or six eggs, of a blueish colour spotted with black.

Their nest is in general placed in the steeple of a church, in old towers, and ruined edifices. They have likewise been



Cor. Moredula.

— Jackson.

known to build in hollow trees near a rookery. In some parts of Hampshire, from the great scarcity of towers and steeples, they are obliged to form their nests under ground in rabbit-burrows; they also build in the interstices between the upright and cross stones of Stonehenge, far out of the reach of the shepherd boys, who are always idling about that stupendous monument of Druidical Architecture.

In the isle of Ely, from the want of ruined edifices, they often build their nests in chimnies. An instance is recorded that in a chimney (which had not been used for some time, wherein a nest of these birds had been placed), a fire was lighted, the blaze caught the materials of the nest, which were in such quantity that it was with the utmost difficulty the house could be preserved from the flames.

In the islands of South Ronaldsha, Walls, &c. they are said to breed in the holes of the rocks, in company with the Rock-Pigeons, Starlings, &c.

The eggs of the Jackdaw are esteemed

a great delicacy, and equal in flavour to those of the Plover.

They feed upon insects, grain, fruit, and even flesh. A bird of this species, now in our possession, has for its companion a *Kestrel*, and we have been frequently amused when giving a piece of flesh to the Hawk, by observing with what cunning the Jackdaw moves around him whilst feeding, and the moment he perceives the eyes of the Hawk removed from the flesh, seizes and carries it away. This bird will likewise pluck the French beans when green from the plant, and having eat them in great quantities will, in about an hour's time, eject them from the mouth in large pellets.

Jackdaws are easily tamed,* and may with little difficulty be taught to articulate several words. Their various tricks and sagacity when domesticated render them beyond any other bird, the source of mirth and amusement.

The above mentioned is so completely domesticated, that it is suffered to have its liberty, and flies about with as much freedom as a tame pigeon.

They sometimes do much mischief in Dove-houses, and we are informed by the Rev. Mr. Whitear, that an instance lately occurred at Ringstead, in which a Jackdaw killed and partly devoured an old pigeon, and then deliberately laid its own egg close to the two upon which the pigeon was sitting.

They have likewise been observed to take small fish.

This bird or its varieties are said to be found in Europe, Western Siberia, and Persia. Gmelin enumerates nine varieties. They are sometimes found in this country quite white; and we have seen a specimen which was killed at Taverham, most elegantly mottled with black and white.

CORVUS GLANDARIUS.

JAY.

Wing; coverts blue, with transverse black and white lines; body pale, rusty, purple, mixed with grey.

Corvus Glandarius, Lin. Gme.

Le Geai, Buffon.

Jay, Pen. Lath. Mont. Bew. Shaw.

The Jay, which must be considered as the most elegant British bird in this *genus*, measures thirteen inches in length, and about twenty inches and a half in the expansion of its wings.

These birds are very common inhabitants of our woods, where they build in the trees and bushes an artless nest, composed of sticks, fibres, and twigs, wherein the female deposits five or six eggs, of a light brown colour, not very unlike those of the Partridge, but smaller, and obscurely marked with a darker shade of brown.

The young Jays (as was before men-



C. Glandarius. — Jay.



tioned of the Shrikes), continue with the old ones till the next pairing time; they then choose each its mate, and separate, in order to produce a new progeny. The old birds, when enticing their fledged young to follow them, make a noise like the mewling of a Cat. Its common notes are various, but harsh. Montagu says that in the spring it will sometimes, "utter a sort of song in a soft and pleasing manner, but so low as not to be heard at any distance; and at intervals introduce the bleating of a lamb, mewling of a cat, the note of a kite or buzzard, hooting of an owl, and even the neighing of a horse. These imitations are so exact even in a natural wild state, that we have frequently been deceived." It will also make a singular noise, somewhat like the crying of children.

In general they feed on acorns, nuts, seeds, and fruits of all kinds; but will sometimes destroy young chickens and eggs, and will also take away birds that have been caught in a trap or entangled in bird-lime. It is a restless and noisy

bird, frequently depriving the anxious gunner of his mark, by alarming too soon his destined victim; for the moment it espies any person, it sits up a harsh chattering scream, by which its associates, and all others know that an enemy is near.

The Jay may be easily taught to articulate very distinctly, and is frequently caged for that purpose. In confinement, however, it soon loses the beauty of its plumage, and becomes of a dirty brown.

“A Jay, kept by a person we were acquainted with, (says Bewick) at the approach of cattle, had learned to hound a cur dog upon them, by whistling and calling upon him by his name; at last, during a severe frost, the dog was, by that means excited to attack a cow big with calf, when the poor animal fell on the ice and was much hurt. The Jay being complained of as a nuisance, its owner was obliged to destroy it.”

In the autumn this bird is said to lay up a store of acorns, &c. for a winter supply, but we much doubt the fact, as no animal but such as become partly torpid in cold weather require such a provision.

It is found in most of the temperate parts of Europe.

Some varieties perfectly white, and others white with the markings of the wings of the usual colours, have been found in Great Britain.

CORVUS CARYOCATACTES.
NUT-CRACKER.

Brown; dotted with white, wings and tail black; tail-feathers black at the tip, the middle ones as if worn.

Corvus Caryocatactes, Lin. Gme.

Le Casse-noix, Buffon.

Nut-Cracker, Pen. Lath. Shaw. Mont. Bew.

This bird is so very rare in this country, that only four instances of its being taken are recorded. One was shot near Martyn in Flintshire, October 1753; a second in Kent, date not mentioned; a third in the north of Devonshire, August 1808; and another in Cornwall during the same year. It is said to measure thirteen inches in length.

It appears to be more frequent in Germany, and has been seen in Sweden and Denmark. In the year 1754 according to Buffon, "great flights of them entered



I. Hunt

Corvus Caryocatactes — Nut-Cracker



France, particularly Burgundy, where there are a few Pines. They were so fatigued on their arrival, that they suffered themselves to be caught by the hand." We may remark, says the same author, "that, that year was exceedingly arid and hot, which must have dried up most of the springs, and have much affected those fruits on which the Nut-crackers usually feed. Besides as on their arrival they seemed to be famished, and were caught by all sorts of baits; it is probable that they were constrained to abandon their retreats for want of subsistence." In the same year (1754) flights so numerous of Nut-Crackers passed into Lorrain, that the woods and fields were filled with them. Their stay lasted the whole month of October, and hunger had so much enfeebled them, that they were knocked down with sticks. A flight of these birds appeared again in Lorrain in 1763, but in smaller numbers;" and Mr. Wood informs us that amazing flocks of them arrived in Holland in the year 1793.

These birds keep chiefly in immense forests of Pines, probably for the sake of the fruit of that tree, they are also partial to the kernels of nuts.

They nestle like the Woodpeckers, in holes of trees, which they perforate, or at least enlarge those already made by the Woodpecker. This is not the only resemblance they bear in their manners to that tribe of birds, for the middle feathers of the tail are much worn, which shews that they climb upon the trunks and branches of trees.

We have referred to numerous authors for a description of the egg of the Nut-Cracker. Wood is the only author we know of who has noticed them. He says that "it lays five or six eggs of a yellowish colour, with blackish spots."

The same author says that "it may be brought up if taken young, but refuses all food, and dies, if confined after it has been used to its liberty."

It is not unfrequent on the mountains of Switzerland, and Latham mentions that

it is to be found in North America, and that a specimen of it was brought from Kamtschatka.

Our Drawing was made from a beautiful specimen in the London Museum.

CORVUS PICA.

MAGPIE.

Variegated black and white; tail wedged.

Corvus Pica, Lin. Gme.

La Pie, Buffon.

Magpie, Pen. Lath. Bew. Shaw. Mont.

PROVINCIAL.

PIANET, HAGISTER, PYNOT.

The Magpie in its wild state, is one of the most beautiful birds this country produces. Its colours are so vivid and changeable, that they defy every attempt to depict them. It measures about eighteen inches in length, and two feet in breadth. The female differs from the other sex in being rather less, and the tail being much shorter.

The place of nidification is various; sometimes its nest is placed in a high tree, sometimes in a thick bush or hedge, and frequently at a small distance from the ground. From these circumstances it has



Corvus Pica. — Magpie



been supposed that there are two species, which have sometimes been denominated the Tree-Mag and the Hedge-Mag. The female builds her nest with great art, leaving a hole in the side thereof for her admittance, and covering the whole upper part with a texture of thorny branches, closely entangled, thereby securing her retreat from the rude attacks of other birds. But it is not safety alone she consults, for the inside is furnished with an excellent sort of mattress plaistered with earth, and lined with wool, and other soft materials, on which her young repose. She lays six or seven eggs early in the spring, of a yellowish white colour, spotted with brown and cinereous. Latham describes them to be of a greenish tinge, thickly spotted with black.

These birds generally continue in pairs the whole year, but during the winter, assemble sometimes in great numbers.

It is an artful, clamorous bird. Neither the fox or other wild animals can appear without being noticed; even the fowler is frequently spoiled of his sport, for the

other birds seem to understand their alarming chatter. Though shy, it rarely removes far from the habitation of man. Its attachment, however, appears to be governed by self-interest; for it is a great enemy to the husbandman, but has sufficient cunning to evade his wrath. No animal food comes amiss to its carnivorous appetite; young poultry, eggs, leverets, young rabbits, feathered game, &c. It will even attack lambs by first plucking out their eyes; fish, insects, fruit, and lastly grain when nothing else can be had.

Like others of this *genus*, the Magpie may be taught to articulate a number of words, and on that account it is often doomed to a state of vulgar captivity, in which its appearance partakes of the cast of those who confine it, the beautiful gloss of its colours being lost, and nothing remaining but a dingy variegation of black and white.

In ancient authors many absurd tales are told of this bird, which at the present day would only create a smile. It is said that if a person happens to espy her nest,

and the bird observe him, that she will transport the eggs to some other place, either between her claws, or in a way that would puzzle our best balancing masters; namely, by glueing to the under side of a twig, with her excrements, an egg at each end, and taking the burthen equally poised on her neck.

Numerous similar anecdotes might be selected, but we think the above sufficient. Even at the present day in various parts of England, if one of these birds is observed flying by itself, it is accounted by the vulgar a sign of ill-luck: if two they are supposed to forebode something fortunate: three indicate a wedding, and four a funeral.

These important auguries have been comprised in the following distich:

One for sorrow, two for mirth,
Three for a wedding, and four for death.

The Magpie is a shy bird, (as we have before observed) and therefore very difficult to be taken. It is recommended to fix an egg with warm pitch on the bridge of a steel trap. The bird not being able

to remove the egg, will seldom fail to trample about the trap till it is sprung.

It may be said to be a general inhabitant in most countries in Europe; it is likewise found at Aleppo, and in various parts of Asia.

Varieties of the Magpie have been taken of a buff or cream colour, and a specimen in the late Leverian Museum was nearly white, curiously streaked with black.





Corvus Graculus. Common Chough

CORVUS GRACULUS.
RED-LEGGED CROW.

Violet-blackish; beak and legs red.

Corvus Graculus, Lin. Gme.

Le Coracias, Buffon.

Red-legged Crow, Pen. Lath. Shaw.
 Bew. Mont.

PROVINCIAL.

**CORNISH CHOUGH, CORNISH DAW,
 CORNWALLKAE, KILLIGREW, CHAUK
 DAW, MARKET-JEW-CROW.**

The Red-legged Crow measures sixteen inches in length, and about thirty-three inches in the expansion of its wings.

Both sexes agree in plumage, but the female is smaller, and the beak not so long as that of the male.

These birds (in this country) seem to be chiefly confined to Devonshire, Cornwall, and Wales. Except that they are also found in small numbers on the cliff at Dover, where (says Pennant) they came by accident. "A gentleman in that neigh-

bourhood had a pair sent him as a present from Cornwall, which escaped, and stocked these rocks. They sometimes desert the place for a week or ten days at a time, and repeat it several times in a year."

The female builds her nest in the most inaccessible cliffs, and in ruined towers. It is composed of sticks, and lined with a great quantity of wool and hair. The eggs are generally five in number, of a dull white, sprinkled with light brown and ash-coloured spots, most numerous at the larger end.

It is a very tender bird, of an elegant form, and unable to bear severe weather. Like the Jackdaw, it is active, restless, and meddling; it feeds on insects, of which the grass-hopper appears to be a dainty, and the fern-chaffer another favourite morsel. These it swallows whole; but if the great-chaffer be given to it, the bird places it under one foot, pulls it to pieces, and eats it piece-meal. It likewise appears to be fond of hemp seed and juniper berries.

These birds frequently fly very high,

and in a circular direction, making a shriller noise than the Jackdaw. The Cornish peasantry attend so much to them, that it is common to see them tame in their gardens. They are observed to shriek out very loud on the appearance of a stranger, but when applying for food, or desirous of pleasing those who usually fondle them, their chattering is soft and engaging.

When tame, they are docile and amusing, and extremely regular to their time of feeding. But however familiar they may be to their immediate friends, they will not permit a stranger to touch them; will resent any affront with violence and effect, employing both beak and claws for that purpose, and will hold so fast by the latter, as to be with difficulty disengaged.

The Red-legged Crow is found upon the Alps, in Canada, in Egypt, where great numbers resort towards the end of the inundations of the Nile, and also in the Persian empire.

PICÆ.

GENUS 14.

CORACIAS.—ROLLER.

The characters of this *genus*, as given by Linnæus, are as follow.

Bill; sharp edged, bent in at the point, the base naked of feathers.

Tongue; cartilaginous, bifid.

Legs; short.

Feet; formed for walking.

Some or other of the different species belonging to this *genus*, are to be met with in every quarter of the globe.

Latham enumerates in the body of his synopsis only sixteen species, though in his index which was published some years afterwards, he has extended them to twenty-two, of which the following is the only one known to have been taken in the British Isles, and even of this the



Titane

Coracias Garrula — Roller

same author mentions but two instances, of which he cautiously observes "we are told in the British Zoology that it has been twice shot in England.*"

* The Portrait accompanying the History of the *Garrulous Roller*, was taken from a specimen killed at Bungay Up-lands, on the 23rd of September, 1817, and is now in the possession of Mr. CRICKMER of Beccles, to whom we feel extremely obliged.

CORACIAS GARRULA.
GARRULOUS ROLLER.

Blue, back red; quill feathers black.

Coracias Garrula, Lin. Gme.

Le Rollier, Buffon.

Roller, Pennant, Bewick.

Garrulous Roller, Lath. Mont. Shaw.

PROVINCIAL.

**STRASBURG JAY, SEA MAGPIE, BIRCH
 MAGPIE, GERMAN PARROT.**

The common or European Roller is about the size of the jay, and is a bird of an elegant shape, the orbits of the eyes are bare, and beyond each eye is a small bare spot or tubercle.

It builds its nest in trees, particularly the birch and beech; its eggs are of a pale green, with innumerable dusky spots. The young birds do not acquire the delicate blue colour till the second year.

In some individuals the back is of a brighter or redder cast than in others, and

the tail-feathers sometimes appear nearly even at the end. These are probably either young birds or females.

Very few instances, as Latham has justly intimated, can be adduced of the Roller having been found in this country, and these can only be accounted for from accidental circumstances attending their migrations. For it is a migratory bird.

It is found in Germany, Italy, Spain, France, Sicily, and Malta. In the last of these places they are sold at the Poulterers' shops. It has been seen in Sweden, but seems most to abound in Africa. It is often seen in company with woodpeckers, crows, and rooks, in tilled grounds, which are in the vicinity of woods; and feeds on seeds, roots, worms, caterpillars, grasshoppers, &c.

The note of this bird is loud and chattering, from whence it derives its Latin name.

Russel in his History of Aleppo, informs us that this bird is known to the natives by the name *Quies Nidjes*, or the beautiful impure.

PICÆ.

GENUUS 15.

ORIOLOUS ORIOLE.

The Linnæan characters of this *genus* are

Bill; conic, convex, very sharp and straight; upper mandible a little longer, slightly notched.

Tongue; bifid, sharp pointed.

Feet; formed for walking.

Latham enumerates forty-five, or in his index forty-seven; and Gmelin fifty-one species besides varieties of birds belonging to this *genus*; most of them are natives of the American continent.

They are a noisy, gregarious, and voracious race. Most of the species form pendulous nests, from the exterior branches of trees, which secure their young from rapacious animals. Several of these nests are usually constructed on one tree. A celebrated author speaking of this *genus*

of birds says "the Orioles are generally of a social disposition. Love, which separates so many other animals into pairs, in order to propagate their kind, and fulfil the desires of nature, serves only to strengthen the bonds of their union. A great number of pairs of some of the species are often seen upon the same tree, nestling, hatching, and educating their young together. They always choose one of the tallest trees for constructing their nests, which are of a cylindrical form, suspended from the extremity of the highest branches, and floating in the air. The young are thus in continual motion, as if rocked in a cradle. A traveller, who walks into the forests of those countries, among the first strange objects that excite his curiosity, is struck with the number of birds' nests hanging at the extremity of almost every branch. The whole history of nature does not, perhaps, afford an example of a more ingenious and successful precaution than that of these birds, against those animals by which they are surrounded, and which are hostile to their

kind. In well-peopled and cultivated parts of the world, where the feathered race have more to fear from man, they generally avoid this formidable foe, by cautiously concealing their habitations from his sight. But, in those solitary and extensive forests of the New World, where man is seldom seen, the bird hangs its nest up to general view, and is only solicitous that it be beyond the reach of those voracious animals who live by robbery or surprise. With this view the nest is attached to the depending points of the large branches of the banana or plantain trees; where the monkey and serpent are set at defiance."

Some species feed on fruits and others on grain.

The Golden Oriole is the only species belonging to this *genus*, ever met with in the British Isles.



Oriolus Galbula.—Golden Oriole.

ORIOLOUS GALBULA.
GOLDEN ORIOLE.

Pale yellow; lores and limbs black; outer tail-feathers on the hind part yellow.

Linnæus describes five varieties of this species.

Oriolus Galbula, Lin. Gme.

Le Lorient, Buffon.

Golden Thrush, Edwards.

Golden Oriole, Pen. Lath. Mont. Shaw.

PROVINCIAL.

GOLDEN THRUSH, WITWALL.

The length of this species is about nine inches and a half, and breadth sixteen. The female differs considerably from the male in the colours of its plumage. Those parts which are black in the male, are, in the female of a dull greenish brown; wings dusky; tail dirty green, and all but the two middle feathers yellowish white. It is remarkable for constructing its nest upon a different principle from those of

the generality of European birds, supporting it only by the edge or rim, so that it bears the appearance of a shallow purse or basket. For this purpose the bird selects the forked extremity of some slender branch, and connecting the two forks round with straws, grasses, or other vegetable fibres proper for the purpose, at length connects the two extremities, in order to form the verge of the nest; then, continuing the straws, &c. from one side to the other, giving the whole proper depth, and crossing and interweaving them as the work proceeds, forms the general basket or concavity, which it afterwards thickens with the stems of the finer grasses, intermixed with moss and lichens; and lastly binding it with still finer materials, as the silken bags of the chrysalides of moths, the eggs of spiders, feathers, &c. The bird is observed to build generally in high trees, but to place the nest in rather a low part of them. The usual number of eggs is four or five, and their colour of a dirty white, with numerous dark brown spots, thickest near the larger end.

The young are fed with insects, and particularly with caterpillars; the parents are unusually assiduous in the care of their young, and will assault violently those who attempt to disturb them during this occupation. Latham says it has been known that the female has suffered herself to be taken with the nest and eggs, and continued sitting upon them (even when confined in a cage) until she died.

The young associate with their parents long after their full growth, and even till the succeeding year. The young male resembles its female parent until the first moulting is completed.

It was asserted by the ancients that the young of this bird were excluded by degrees, and in detached parts, and that the first object of the parents was to collect and combine the scattered limbs, and by virtue of a certain herb, to form them into an animated whole.

The Golden Oriole, or as it has been called the Golden Thrush or Witwall, is, during the summer months, an inhabitant of many of the temperate and warmer parts

of the continent of Europe; but has very rarely been met with in England. Pennant mentions one of them having been taken in Wales, two were shot in Cornwall in 1809; and a few years since two were taken near Saxmundham in the county of Suffolk and are now in the possession of Mr. Bright of that place.

This bird breeds in France, where it arrives about the middle of Spring, and leaves that country by the end of August or beginning of September. In the island of Malta it makes its annual appearance about the middle of September, in its passage to more southern regions, returning in the spring, by the same way, to its more northern residences. It is also observed in the neighbourhood of Constantinople, Aleppo, &c. in the spring, departing in September. It may therefore be supposed to spend the winter in Asia and Africa, and to pass the summer in Europe. Specimens of this bird have been brought from Bengal, China, and the Cape of Good Hope.

Its note is loud and piercing, and has

by some been compared with its French name, *Loriot*. We have before stated that the young are chiefly fed on caterpillars and other insects; but the bird when full grown feeds also on fruits of various kinds, particularly on figs, grapes, and cherries. A couple of these birds (says Buffon) "could in one day completely plunder a rich cherry-tree; for they peck the cherries one after another, and only eat the ripe part."

In some places it is considered a delicate article of food.

Mr. Seaman of Ipswich has a specimen in his collection, of a much brighter colour than the one from whence our drawing was taken; it likewise differs in having the under part of the throat black, the shoulders yellow, and the tail and wings quite black.

PICÆ.

GENUS 20.

CUCULOUS.—CUCKOW.

The Linnæan characters of this *genus*, as given by Gmelin, are,

Bill; smooth, a little curved.

Nostrils; surrounded by a small rim.

Tongue; arrowed, short, pointed.

Feet; formed for climbing.

The different species (of which Gmelin enumerates fifty-five, besides varieties) belonging to this *genus* are dispersed through the four quarters of the globe; they are much more numerous in the hot, than in the temperate or cold regions.

Only one species is to be found in the British Isles, and not more than two or three are natives even of Europe.





Cuculus Canorus. L. — Immature Cuckoo.

Cuculus canorus — Cuckoo





CUCULUS CANORUS.
COMMON CUCKOW.

Cinereous; beneath whitish, transversely streaked with brown; tail rounded, blackish, dotted with white.

Cuculous Canorus, Lin. Gmelin.

Le Coucou, Buffon.

Common Cuckow Lath. Mont. Donovan.

Cuckoo, Bingley, Bew. Pen.

PROVINCIAL.
GOWK.

“Hail, beauteous stranger of the wood,
 Attendant on the spring!

Now heaven repairs thy vernal seat,
 And woods thy welcome ring.”

“Soon as the daisy decks the green
 Thy certain voice we hear;
 Hast thou a star to guide thy path,
 Or mark the rolling year!”

“Sweet bird, thy bower is ever green,
 Thy sky is ever clear;
 Thou hast no sorrow in thy song,
 No winter in thy year!”

“O! could I fly, I’d fly with thee;
 We’d make, with social wing,
 Our annual visit o’er the globe,
 Companions of the spring.”

The male Cuckow measures nearly fifteen inches in length, and two feet one inch in the expansion of its wings.

The female measures fourteen inches in length, and in general differs from the other sex in the neck and breast being of a tawnyish brown, barred with dusky, and the coverts of the wings marked with ferruginous spots; the markings on the tail and quill-feathers much like those of the male, only the edges of the spots are inclining to reddish brown, the legs of both sexes are short and yellow.

We think it probable that the young do not entirely throw off their nestling-feathers till the second year’s moulting, as we have seen specimens wherein some of the quill-feathers and the greater coverts impending them were brown and ferruginous.

The colours in the plumage of the young of this species does not in the least

accord with those in the adults, and as some authors have described them in that state as a distinct species, we have thought it necessary to give a separate plate, in order to elucidate the subject.

The egg of the Cuckow appears to be but little known, and we have not the least doubt but that the egg of some other bird has either frequently been described through mistake, or, that it varies in different individuals. Montagu thus describes an egg which he took from a female Cuckow. "It weighed forty-four grains, the colour white, sprinkled with two shades of ash-coloured spots, mostly at the larger end." Graves says that "the eggs are of a dusky white, spotted with tints of ash-colour and olive green; the spots are more numerous at the larger end." Others describe them as resembling the house sparrow, &c. In a female which we dissected last season, 1816, we found an egg in a perfect state, it was rather larger than that of the house sparrow, white, elegantly splashed with a blossomish tint, but principally at the

larger end, and with this description of ours Latham seems exactly to agree.

The male Cuckow visits us early in the spring, of which it is always greeted as the welcome harbinger; its well-known cry is generally heard about the middle of April, and ceases in the latter end of June. The female does not arrive till a short time after the male, and remains with us a few weeks later, and some of the younger birds even remain with us for some time after the old birds have left this country. We are told that the note of this bird has been heard at midnight, as also that it has been heard in the depth of winter, when the weather happened to be finer than usual; we are confident those authors did not intend to mislead, but as it is well known that almost any plough boy can imitate the note of this bird, we should suspect that they have been deceived by some such means. The Poet seems to have been of the same opinion.

“The school boy wandering in the wood
To pull the flowers so gay,
Starts—the new voice of spring to hear,
And *imitates* thy lay.”

By many authors it has been believed that the Cuckow does not leave us, but remains in a state of torpidity, hidden in some hollow tree, or in faggots, &c., completely divested of its plumage. But the tales they have thought proper to give us in proof of their assertion, have been very properly consigned to the class of errors. The migration of this bird has been satisfactorily ascertained, by its visiting the island of Malta on its way to the continent of Africa, and again on its return to Europe, in the autumn and spring.

The note of the male of this species, which is considered by Ornithologists as the call of love, appears to be uniform, and its name, in all languages to have been derived from that source, as for instance, in Latin it is *Cuculus*, in Italian *Cuculo* or *Cucco*, in Spanish *Cuchillo*, in French *Coucou*, in German *Kuckuk*, &c. In all countries also it is used in the same reproachful sense, and the *bird* itself was sometimes painted by the ancients under this idea, as seated upon the sceptre of Juno. (*Silly Gowk* is to this day an

expression of reproach among the populace in Scotland.) Our "immortal Bard" among many other allusions has the following.

"The plain-song *Cuckoo* grey,
Whose note full many a man doth mark,
And dares not answer nay."

The female makes only a chattering noise, which may in some measure account for the few specimens of that sex to be found in collections; for as the note of the male discovers his retreat to the sportsman, so the female is secured by her silence.

Cuckows never pair. The male generally gives the call to love when perched on some dead tree or bare bough, at which time it drops its head very low, and swells its throat, and it appears very likely that Providence has formed its feet in the peculiar manner it has done, that it may support itself from losing its equilibrium, and not for the purpose of climbing in the manner of the woodpeckers, as is generally supposed. We are fully persuaded of the truth of this remark, because from specimens of the young which we have had in

our possession, it was evident that they had no such power, but that the disposition of their toes gives them a very powerful grasp.

Various opinions are given by authors in order to account for their not hatching their young, &c., some have assigned as a reason, the natural coldness of the Cuckow's body, others, the anatomical formation of the thorax. There certainly is no reason to be assigned from the formation of this bird, why, in common with others, it should not build a nest, incubate its eggs, and rear its own young, for it is apparently in every respect perfectly formed for all these offices. But it is a well authenticated fact that it * generally

* We use the term *generally* because there are a few instances recorded which are exceptions. "The Rev. Mr. Stafford one day walking in Blossop dale in Derbyshire, saw a Cuckow rise from its nest, which was on the stump of a tree that had been some time felled, so as to resemble the colour of the bird. In this nest were two young Cuckows, one of which he fastened to the ground by means of a peg and line, and very frequently, for many days beheld the old Cuckow feed these her young ones." The same author (the Honourable Daines Barrington) gives an account of two other instances of Cuckows' nests, in which the proper parents fed their young.

drops its eggs into the nests of other birds, by whom they are hatched; and the young reared by their foster parents, as if they were really their own. The nest she chooses for this purpose is generally selected from the following, viz. The hedge sparrow, wagtail, titlark, yellow bunting, greenfinch or the whinchat. But there are instances of the egg of the Cuckow having been found in the nest of other birds.

During the time the hedge sparrow or other bird is laying her eggs, which occupies three, four or five days, the Cuckow contrives to deposit her egg among the rest, leaving the future care of it entirely to the hedge sparrow, &c. This intrusion often occasions some disorder; for the old hedge sparrow, at intervals, whilst she is sitting, not only throws out some of her own eggs, but sometimes injures them in such a way that they become addle, so that not more than one or two of the parent bird's eggs are hatched; this may account for the popular idea that the Cuckow destroys the eggs she may find in the nest, when she deposits her own. The fact is,

that they are not previously destroyed but may in general be found, either entangled in the bush that contains the nest, or on the ground, lying under it. It is likewise asserted that the egg of the Cuckow is invariably preserved by the foster bird; this appears not to be the case at all times for we are assured by the Rev. Mr. Spurrell that "having found a Cuckow's egg he removed it from the nest into which it had been originally laid (the old birds having forsaken the nest) and put it into that of a chaffinch; but upon going a day or two after to look at the nest, to his astonishment the egg of the Cuckow was gone, nor could he find any remains of it.

It is probable it might not strike him at the time to examine the bush or ground under it with sufficient attention. The egg, however, might have been removed from having received some injury previous to its being placed in the nest, which escaped observation.

Almost every author who has written the history of this bird, has asserted that

it lays only one egg during the season. This we can positively state not to be the fact, (and we are happy to have the authority of so able an Ornithologist as the late G. Montagu, Esq. in confirmation of our assertion) for on dissecting the female before mentioned and other females which have been under our inspection, which were killed soon after their arrival in this country, we have invariably found four or five eggs in a forward state and a number of smaller ones, but from the smallest of the above number to what may be termed *secondary eggs*, there was a sudden break off, not a gradual decrease in size. Montagu was of opinion that the female Cuckow, contrary to the nature of most other birds, had the power of retaining the egg after it had arrived at maturity, and had been impregnated by the male; he says that "there is much reason for supposing this bird is endowed with so extraordinary a property, considering it makes no nest, and that it is obliged to seek the nest of another bird to deposit it in, and *that nest*

fit to receive it, into which one egg only is dropped,* and other nests to seek, for the like purpose, it becomes not only a work of labour, but of hazard and uncertainty, therefore, did it not possess such a qualification, we should conceive the difficulties it had to encounter were too numerous to ensure a continuation of its species. Suppose this bird was obliged, like others, to lay its eggs successively day after day, which we believe to be *five* or *six*, it is hardly probable that five or six nests should be found in a state proper to receive them, much less if she had a greater number."

In a paper published in the seventy eighth volume of the Transactions of the Royal Society, may be seen an elaborate description of the œconomy of this bird in the singular disposal of its eggs, &c., but as the account is much too long for our insertion in this place, and as it has been repeatedly alluded to in other publications we must refer our readers to that work.

We have previously enumerated the birds in the nests of which the eggs or

* Where two have been found in one nest, they certainly were laid by different birds.

young of the Cuckow have generally been found. We have now to illustrate the history of the bird after its exclusion from the shell. As the growth of the young bird is rapid, and the size of the nest very small; there would not in a short time be sufficient room for itself and the young of the foster parent; neither could the old birds provide sufficient food for the whole family. Providence, whose ways are inscrutable to us short sighted mortals, has endowed the Cuckow with so peculiar an instinct, that, were it not authenticated by undoubted authority, must stagger belief. But that Almighty Being, who alone can give animation, can most assuredly endow it with what powers and properties seems best to his unerring wisdom, for its preservation. The author in the work referred to above, assures us (and it has been authenticated by Montagu and others) that the young Cuckow, soon after it quits the shell occupies itself not only in removing its companions from the nest, but also such eggs as may happen to be addled, or that are not hatched at the same

time with itself. And as the means it makes use of for that purpose are so astonishing, we will give the account in his own words. "On the 18th, of June, 1787, I examined the nest of a hedge sparrow, which then contained a Cuckow's and three hedge sparrow's eggs. On inspecting it the day following, the bird had hatched; but the nest then contained only a young Cuckow and one hedge-sparrow. The nest was placed so near the extremity of the hedge, that I could distinctly see what was going forward in it; and, to my great astonishment, saw the young Cuckow, though so lately hatched, in the act of turning out the young hedge sparrow. The mode of accomplishing this was curious; the little animal with the assistance of its rump and wings, contrived to get the bird upon its back, and making a lodgment for its burthen, by elevating its elbows, climbed backwards with it up the side of the nest, till it reached the top; where, resting for a moment, it threw off its load with a jerk, and quite disengaged it from the nest. After remaining a short time in

this situation, and feeling about with the extremities of its wings, as if to be convinced that the business was properly executed, it dropped into the nest again." Several experiments by the same gentleman were made in different nests, by repeatedly putting in an egg to the young Cuckow, which was always disposed of in the same manner. Indeed nature has provided for this singular disposition of the young Cuckow in its formation at this period; for, different from other newly-hatched birds, its back, from the scapulæ downward, is very broad, with a considerable depression in the middle, which seems intended for the purpose of giving a more secure lodgment to the egg or young, while the Cuckow is employed in removing either of them from the nest. When it is about twelve days old, this cavity is filled up, the back assumes the shape of nestling birds in general, and at that time the disposition for turning out its companions entirely ceases.

It appears that the young birds leave this country in succession, probably as

soon as they are capable of taking care of themselves; for although they stay here till they are equal in size, and in growth of plumage, to the parent, yet even in this state the care of the foster parent is not entirely withdrawn from them, for Montagu asserts, "that in order to receive its nourishment, it usually lays down on one side, in order that the small bird may reach its mouth, and frequently extends one wing for the bird to pitch on to perform that office." But at this advanced age they, in all probability, like the young rook, &c. procure part of their own subsistence.

The young birds though helpless and foolish for a great length of time, may be, and often are, brought up tame, so as to become familiar; but very few instances are to be found of their surviving through the winter. In captivity they are usually fed with small pieces of raw meat, but in a state of nature they generally make their repast upon caterpillars; not only the smooth sort, as has been imagined, but also with those of the hairy species. These

it seizes with avidity, shakes them with violence, and after passing them several times backwards and forwards through the beak, till they are perfectly relaxed and pliant, swallows them. White says, that he saw several Cuckows skimming over a large pond; and found, after some observations, that they were feeding on the *ilbellulæ*, or dragon flies; some of which they caught as they settled on the weeds, and some as they were on the wing.

In the infancy of Ornithology, the Cuckow was uniformly ranged amongst the *Accipitres*.

It is found in Europe, Asia, and Africa, and when fat is said to equal the rail in flavour.

Before we leave this article it may not be amiss to enumerate a few of the fables relating to the Cuckow, handed down to us by ancient authors, especially as some of them are still believed by the credulous. In fact, the natural history of the Cuckow is so extraordinary, and its deviations from the general laws of nature so striking, that we need not wonder that it should

not only have furnished to the Philosopher an interesting subject of enquiry, but also have been adopted by the vulgar as the groundwork of superstition, and have become a fruitful source of popular delusions. If in the most refined periods of antiquity, and amidst some of the highest advances of science, which the human intellect has ever been able to make, the flight of an eagle or the croaking of a raven was held sacred and portentous, it could hardly fail but that a creature marked by habits so strange, and rejecting some of even the strongest and most universal passions of animated beings, should be esteemed as acting under the guidance of divine inspiration, and the direction of heaven. It is the character of all superstition to lay hold of whatever is uncommon, and to clothe it with attributes and powers which seem to be only limited by the extent of imagination and the range of fancy.

In some countries they have been held propitious, and venerated as oracles, in others they have been considered as unclean and unlucky. It has been believed

that they were silent during the dog days, and that the soil whereon a person's right foot rested, who first heard the Cuckow's note, was a preventative against fleas and vermin. In Germany, and in many parts of England, it is confidently maintained that the number of times the Cuckow sounds his note when first heard in the spring, will exactly correspond with the number of years the person has to live who hears it; in other places that the number of times when heard by an unmarried person foretels the number of years he or she will remain single. But the most ridiculous is the belief that the Cuckow is nothing else than a little sparrow-hawk metamorphosed; that this change is effected every year at a stated period; that when it appears in the spring, it is conveyed on the shoulders of a kite, which, to assist the weakness of its wings, is so obliging as to carry it; that it discharges upon plants its saliva, which proves pernicious to them by engendering insects; that the female takes care to lay into each nest, an egg like those before

contained in it, the better to deceive the mother; that the mother nurses the young Cuckow, and sacrifices her own brood to it, because they are not so handsome; that like a true step-mother, she neglects or kills them, and directs the intruder to eat them. Numerous other absurdities might have been selected, but we think the above quite sufficient.

It will be seen from the portraits given with this article, as well as in instances before noticed in the work, that the colour of the irides of birds are not at all times a sufficient ground for *specific* distinction, as some authors have maintained, for in the immature bird they will be found to be of an *hazel* colour, (in some they are greyish) whereas in the adult they are *yellow*.

PICÆ.

GENUS 21.

YUNX—WRYNECK.

The characters of this *genus* are
Bill; smoothish, pointed, a little incurved, weak.

Nostrils; concave, naked.

Tongue; very long, smooth, worm-shaped, armed at the point.

Tail; *feathers* ten, flexible.

Feet; climbers.

This genus contains only one species and a variety.



J. Hunt. Aug. 1. 1816.

Yunc Torquilla.

**YUNX TORQUILLA.
WRYNECK.**

Grey; varied with brown and blackish; belly reddish-white with blackish spots; tail-feathers waved with black spots, streaks and bars.

Yunx Torquilla, Lin. Gmelin.

Le Torcol, Buffon.

Wryneck, Pen. Lath. Mont. Bew.
Shaw.

PROVINCIAL.

CUCKOW'S MATE, SNAKE-BIRD, LONG-TONGUE, EMMET HUNTER, CUCKOW'S GUIDE.

The principal colours which distinguish this beautiful little bird, consist of different shades of brown and black, but so elegantly arranged, as to form a picture of the most exquisite neatness. It measures seven inches and a quarter in length, and rather more than eleven inches in the expansion of its wings.

The difference in the colours of the female and young are so trifling from those of the male, and the characters so striking, that they cannot be mistaken for any other species.

This bird is not at the trouble of forming a nest*, but lays its eggs to the number of nine or ten, in the hole of a decayed tree upon the rotten wood. The eggs are white, and the shell so transparent, that the yolk may be seen through it.

The Wryneck is distinguished at first sight by a habit peculiar to itself; it twists and turns its head over its shoulders alternately, at which time the black list on the back of the neck assuming also a twisted appearance, gives the same semblance to the whole body of the bird. Its eyes being half shut, the motion slow, tortuous, and somewhat similar to the undulating motion of a reptile, from which cause it derives its specific name; as likewise the Norfolk provincial name of snake-bird. The young brood have likewise the same vermicular

* It is said sometimes to make a slight nest of dried grass, and to prefer the neighbourhood of meadows.

wreathing, and many a timorous nest-finder has fancied them to be young serpents.

This bird has likewise the power of erecting the feathers on the crown of its head. Its beak seems to be of little use in procuring subsistence, the tongue (as is the case with the woodpeckers) being the chief instrument used for that purpose. When it feeds it is astonishing with what rapidity it darts and retracts its tongue, and with such unerring aim that it seldom is returned without an ant (its principal food) or an egg of that insect adhering to it, not transfixed by the bony part, as some have imagined, but adhering to it by a peculiar tenacious moisture. While it is feeding (says Montagu) "the body is motionless, the head only is turned to every side, and the motion of the tongue is so rapid that an ant's egg, which is of a light colour, and more conspicuous than the tongue, has somewhat the appearance of moving towards the mouth by attraction, as a needle flies to a magnet."

The Wryneck holds itself very erect on

the tree where it sits, with its body almost bent backwards; it likewise runs with great facility in every direction upon the branches, the toes of its feet being placed as in the woodpecker genus, admirably qualifies it for that purpose. It leads a sequestered life, and even migrates solitarily. They arrive singly early in the month of April, a short time before the cuckow, on which account it is sometimes called the cuckow's mate or cuckow's guide. They never enter into any society but that of the females, and even then it is only transitory, for the domestic union is dissolved, and they retire in September. It may be said to form the connecting *link* between the cuckow and the woodpecker; it has the tongue and feet of the latter, but not the strong angular beak of that bird; it has also the feet, and somewhat of the beak of the former; as well as the same number of flexible feathers in the tail.

The note of the Wryneck is similar to that of the kestrel, a quick repeated *squeak*. It is not uncommon in the southern and

eastern parts of the kingdom, but is more scarce towards the northern and western. Gmelin says it is found not only in Europe, but also in Asia and Africa.

PICÆ.

GENUS 22.

PICUS.—WOODPECKER.

The following are the characters belonging to this genus.

Bill; angular, straight, wedged at the tip.

Nostrils; covered with recumbent setaceous feathers.

Tongue; round, worm-shaped, very long, bony, missile, daggered, beset at the point with bristles bent back.

Tail-feathers; ten, hard, rigid, pointed.

Feet; Climbers.

Gmelin enumerates fifty-eight species, besides varieties, belonging to this genus.

Of this number only three are natives of the British Isles, and two other species occasional visitors.

Their characters are striking, and their manners are singular; but, as their habits, mode of nidification, and formation of the

different organs are nearly the same in all the species, we shall, in order to prevent repetition, give only a general description in this place. The beak of the Woodpecker is large, strong, and fitted for its employment. The end of it is formed like a wedge, with which it pierces the bark of trees, and bores into the wood in search of its food, which consists of insects, particularly those which are lodged in the cavity of hollow or rotten trees, or in the interstices of the bark. Traversing up the trunk of the tree, and round about it, (but never downwards, as some have asserted,) he keeps striking with his beak, and when the place sounds hollow, stops, and by continued blows, penetrates a hole in the bark, sufficient to receive his beak, which he then thrusts in, and sends forth a loud whistling into the cavity, in order to disengage the insects, and put them in motion; which he has no sooner done, than he makes use of his tongue, which proves an excellent instrument for procuring this food; as it is long, and tapered like an earth-worm, and tipped with a

hard bony point like a needle, and which it can dart out three or four inches from the beak, and draw in again at pleasure. The larger insects are by this means transfixed, and the smaller withdrawn by adhesion, which being swallowed, the dart is again launched forth to procure a fresh supply.

The organs by which the tongue is enabled to perform its functions with such amazing celerity, may certainly be classed among the most extraordinary productions of nature.* Two small round cartilages are fastened into the bony tip before mentioned, running along the whole length of the tongue. These cartilages, from the root of the tongue, take a circuit beyond the ears; and being reflected backwards above the crown of the head, enter the base of the beak, forming a large bow. The muscular, spongy flesh of the tongue, incloses these cartilages like a sheath; and is so constituted, that it may be extended or contracted like a worm. The

* See the skeleton of the head on the plate of the Green Woodpecker.

cartilages indeed have muscles accompanying them along their whole length backwards. But there is still another contrivance; for there is a broad muscle, joining the cartilages to the bones of the skull, which by contracting or dilating, forces the cartilages forward through the tongue, and then forces the tongue and all through the beak, to be employed for the animal's preservation in securing its prey. The tongue of the Woodpecker is likewise furnished with a glutinous substance, similar to that before described under the article Wryneck. Paley in his *Natural Theology*, makes the following remarks. "The tongue of the Woodpecker is one of those singularities, which nature presents us with, when a singular purpose is to be answered. It is a particular instrument for a particular use; and what, except design, ever produces such? The Woodpecker lives chiefly upon insects, lodged in the bodies of decayed or decaying trees. For the purpose of boring into the wood, it is furnished with a bill straight, hard, angular, and sharp.

When, by means of this piercer, it has reached the cells of the insects, then comes the office of its tongue: which tongue is, first, of such a length, that the bird can dart it out three or four inches from the bill—in this respect differing greatly from every other species of bird;* in the second place, it is tipped with a stiff, sharp, bony thorn; and in the third place, (which appears to me the most remarkable property of all,) this tip is dentated on both sides, like the beard of an arrow, or the barb of a hook. The description of the part declares its uses. The bird, having exposed the retreats of the insects by the assistance of its bill, with a motion inconceivably quick, launches out at them this long tongue, transfixes them upon the barbed needle at the end of it, and thus draws its prey within its mouth. If this be not mechanism, what is? Should it be said, that, by continual endeavours to shoot out the tongue to the stretch, the Woodpecker species may by degrees have lengthened the organ itself, beyond that

* The Wryneck excepted.

of other birds, what account can be given of its form, of its tip? how, in particular, did it get its barb, its dentation? These barbs, in my opinion, wherever they occur, are decisive proofs of mechanical contrivance."

This bird not only makes small holes in trees to procure its food, but also larger ones in order to form its nest, and even this seemingly arduous task is performed with the beak. The hole it makes is as perfect a circle as if described by a pair of compasses. For the places of nidification the softer woods are attacked, the elm, the ash, and particularly the sweet chesnut, but rarely the oak. These are perforated where they have symptoms of decay; and the excavations are frequently deep to give security to their eggs. The jarring noise, or as some have described it, a hoarse laughing noise, so often heard in woods during the spring, is considered by Ornithologists, as the call to love.

When the Woodpecker has discovered the decayed part of a tree, it fastens its claws into the inequalities of the bark,

places the strong feathers of its tail against the tree, and thus standing (as it were) erect, forms the hole with its beak; during the time it is performing this operation, its strokes are reiterated with such velocity, that the head is scarcely perceived to move. The sound may be distinctly heard at a very considerable distance. As they find no great difficulty in making these holes, they are very fastidious in their choice, and often make twenty before one gives entire satisfaction; but having once fixed, they never forsake it until they have reared their young. Beyond making the cavity, they are extremely indolent with respect to the formation of their nests, not taking the trouble to give them any kind of lining, but depositing their eggs in the hole, without any thing to keep them warm, except the heat of the parents' body.

The flight of these birds is undulating, their notes harsh, and their toes placed two forward and two backward, except in one or two foreign species.

Monsieur Buffon with his usual warmth of imagination, thus describes the seemingly dull and solitary life of the Woodpecker.

“Of all the birds which earn their subsistence by spoil, none leads a life so laborious and so painful as the Woodpecker. Nature has condemned it to incessant toil and slavery. While others freely employ their courage or address, and either shoot on rapid wing, or lurk in close ambush, the Woodpecker is constrained to drag out an insipid existence in boring the bark and hard fibres of trees, to extract its humble prey. Necessity never suffers any intermission of its labours—never grants an interval of sound repose—often during the night it sleeps in the same painful posture as in the fatigues of the day. It never shares the cheerful sports of the other inhabitants of the air: it joins not their vocal concerts, and its wild cries and saddening tones, while they disturb the silence of the forest, express constraint and effort.

Its movements are quick; its gestures,

full of inquietude; its looks, coarse and vulgar; it shuns all society, even that of its own kind; and when it is prompted by lust to seek a companion, its appetite is not softened by delicacy of feeling." "It breeds in the cavities which it has in part formed itself; the progeny issue from the heart of the tree, and, though furnished with wings, they are almost confined to the verge of its circumference, and condemned to tread the dull round of life." "Such, he observes, is the narrow and gross instinct suited to a mean and a gloomy life."





Picus Martius — *Gr. Black Woodpecker.*

PICUS MARTIUS.
GREAT BLACK WOODPECKER.

Black; cap. vermilion.

Picus Martius, Lin. Gm̃e.

Le pic Noir, Buffon.

Great Black Woodpecker, Lath. Don.
Pen. Mont.

We have not been able to collect more than four well-authenticated instances of this bird having been killed in this kingdom; two of these were taken in Dorsetshire; a third was killed in the winter of 1805, in Battersea fields; and a fourth was shot by Lord Stanley, in Lancashire. Nevertheless, as it has been ranged by Montagu and others in the list of British birds, its portrait, &c. cannot but be acceptable to the English Ornithologist.

The Black Woodpecker measures seventeen inches in length, and is in bulk about the size of the jackdaw.

The female differs from the male in having only the hinder part of the head

of a vermilion, (in some specimens this mark is wholly wanting,) and the whole plumage has a tinge of brown. This bird, like the rest of the genus, prefers trees that are somewhat decayed, for its purposes of nidification; but from its superior size and strength, it is enabled to do considerable damage, even to those which are sound. It bores, says Buffon, "to the heart of the trunk, and forms a very capacious cavity; as much as a bushel of wood-dust and chips is often seen on the ground below its hole; and sometimes it hollows out the substance of the trees to such a degree, that they are soon borne down by the wind." In the bottom of the excavation, the female deposits two or three white eggs.

The Great Black Woodpecker is found in various parts of Europe, particularly in the tall forests of Germany. It is also found in Siberia and Chili; but does not appear to be numerous in any particular district, being a solitary and wild bird, seldom ranging far from the spot it has once chosen. Its mode of taking its prey,

(which consists chiefly of insects,) and the structure of its different organs the same as in the other species, it is unnecessary to enter into a repetition of the subject.

This bird is said to destroy such vast numbers of bees, by piercing their hives, that in Russia the inhabitants remove the hives as far out of its way as possible, and for greater security they surround them with thorns.

We have before noticed that this bird, from its superior strength, is enabled to do great mischief to forests, which may perhaps account for its being so scarce, even on the continent, where the proprietors of woods for self defence (if we may so use the expression) are obliged to declare war against the whole race. Some idea may be formed of its capability of doing mischief, from the following extracts from Buffon, though we cannot but think them a little exaggerated. "This bird strikes the trees with such force, that, according to Frisch, it may be heard as far as a hatchet." M. Deslandes, in his

Essay on the Ship-building of the Ancients,
regrets that there are few trees fit for
making qars forty feet long, which are not
bored by the Woodpeckers."





P. Viridis.
Green Woodpecker.

PICUS VIRIDIS.
GREEN WOODPECKER.

Green; crown crimson.

Picus Viridis; Lin: Gme.

Pic Verd; Buffon.

**Green Woodpecker; Pen. Lath. Bew.
 Mont. Don.**

PROVINCIAL.

**WOOD-SPITE, RAIN BIRD OR RAIN
 FOWL, HIGH-HOE, HEW-HOLE, AWL-
 BIRD, YAPPINGALE, YAFFLE OR
 YAFFLER, WOODWALL, POPPINJAY,
 PICK-A-TREE.**

The Green Woodpecker measures thirteen inches in length, and twenty and a half in the expansion of its wings, and weighs about six ounces. The female is somewhat smaller than the male, and has not the red spots on the cheeks, as in the other sex. She usually lays five or six eggs of a beautiful transparent white. The young birds have the same markings

as are to be found in the adults, with the addition of a number of blackish grey spots upon the breast and back. They run about upon the branches for a considerable time before they are able to fly.

This species is not uncommon about most of the woody parts of England, and is seen more frequently upon the ground than the other species, particularly where there are ant hills, of which insect and its eggs, it appears to be particularly fond. The Green Woodpecker is found in both hemispheres. In the spring it makes the forests resound with shrill harsh sounds, which are heard at a great distance. These sounds are uttered chiefly when it bounds in the air, sinking, and again rising by starts, and describing its undulating tracks. But though it mounts only to a very moderate height, it can fly from wood to wood at considerable distance. In the pairing season it has, besides its ordinary cry, a call of courtship, which resembles, in some measure, a loud continued burst of laughter, repeated several times in succession.

This bird will frequently suffer the sportsman to approach the tree whereon it has alighted, endeavouring to conceal itself by running round the branches.

The cry of this bird is generally believed by the vulgar to foretel rain; and as all birds are allowed to have a foresight into the state of the atmosphere, superstition seems in all ages to have ascribed to it the most profound and wonderful sagacity. In the Mythology of the Ancients, Picus was considered the son of Saturn, and father of Faunus, and grandfather of king Latinus. For despising the love of Circe, he was changed into a Green Woodpecker: he became one of the rural gods, under the name of Picumnus. While the she wolf suckled Romulus and Remus, this sacred Woodpecker was seen to alight on their cradle.

Pliny relates a curious incident, which exhibits in the ancient Romans, two qualities that might be deemed incompatible, superstitious observance and elevation of sentiment.

“A Woodpecker alighted on the head

of the prætor Ælius Tubero, while he was sitting on his tribunal in the forum, and suffered itself to be taken by the hand. The augurs being consulted on this prodigy, declared, that the empire was threatened with destruction, if the bird was liberated; and the prætor with death, if it was kept. Instantly Tubero tore it with his hands. Shortly after, Pliny adds, the response was fulfilled."

The Tunguses of Nijaia-tunguoka ascribe extraordinary virtues to the Woodpecker; they roast the bird, pound it, mix it with any sort of fat, except that of bears, because this quickly grows rancid, and with this compound besmear the arrows which they use in the chase. An animal struck with one of these arrows, it is said, instantly falls.

We have extracted the following from Wood's edition of Buffon's Works. "Sonnini says that the Woodpecker is neither so vicious nor indocile as is generally supposed; for when taken young it is susceptible of familiarity, and even of attachment. He mentions one at

Nancy, which was so tame as to be troublesome. Its owner, willing to get rid of it, left it at the door of a shady walk. The Woodpecker immediately climbed to the top of a very high poplar, where, seeing its master at a distance, it flew to him, perched upon his shoulder, and remained there. Domestication had changed its natural habits, it no longer lived on insects, but fed almost entirely on buns. It sometimes, however, showed a disposition to be cruel, by fixing itself to a cage containing some small birds, and attempted to peck them."

PICUS VILLOSUS
HAIRY WOODPECKER.

Back, somewhat downy, longitudinally;
outer tail-feathers entirely white.

Picus Villosus, Lin. Gme.

Pic Chevelu de Virginie, Buffon.

Hairy Woodpecker, Pen. Lath. Mont.

This species measures from nine to twelve inches in length.

The female wants the red on the head; in other respects it is like the male.

The Hairy Woodpecker inhabits North America, from Hudson's Bay to Carolina, and is said not to be uncommon in the North of England. It is very destructive to orchards.



J. Hunt

Picus Villosus.
Hairy Woodpecker.





Picus Major.

PICUS MAJOR.
GREATER SPOTTED
WOODPECKER.

Variegated with black and white; vent and hind head red.

Picus Major, Lin. Gme.

L'Epeiche, ou Pic Varie, Buffon.

Greater Spotted Woodpecker, Pen.
 Lath. Bew. Mont.

PICUS MEDIUS.
MIDDLE SPOTTED
WOODPECKER.

Variegated with white and black; vent and cap red.

Picus Medius, Lin. Gme.

Middle Spotted Woodpecker, Pen. Lath.
 Bew. Mont.

PROVINCIAL.
SPOTTED GALLY-BIRD, WITWALL, PIED
YAFFLER.

The Greater and Middle Spotted Woodpeckers have been described by authors as

distinct species; whilst others have suspected that the *Middle* was only a variety of the *Greater Spotted* species. We have long been satisfied, from having had different specimens, that the *Picus Medius* was no other than the young of the *Picus Major*. In the supplement to the Ornithological Dictionary, Montagu, upon the authority of Lord Stanley, speaks positively as to the fact; and in confirmation of the opinion we had previously formed, we were happy in receiving a communication from the Rev. Mr. Whitear, inclosing the old male bird and three young ones, taken from the hole of a tree, on the 29th of June, 1816. The old bird exactly answered the description of the *Greater Spotted Woodpecker*, and the younger birds that of the *Middle Spotted Woodpecker*. It is certainly a curious circumstance, that the beautiful scarlet on the head of the young, is next to the white forehead; whilst in the old bird, the scarlet is at the back of the head, and the black next to the white forehead.

The before-mentioned birds weighed as

follows: the old bird 2oz. $2\frac{1}{2}$ drs., one young bird 2oz. $4\frac{1}{2}$ drs., another 2oz. $2\frac{1}{4}$ drs., the third 2 oz., by which it appears that one of the young was heavier than the old bird.

The Greater Spotted Woodpecker measures nine inches in length, and sixteen inches in the expansion of its wings.

The female resembles the other sex in every respect, except that it wants the scarlet mark on the head. She lays five or six eggs of a pure glossy white.

The Greater Spotted Woodpecker is less frequent in England than the Green species. It is also found in various parts of Europe, North America, and Siberia. Like the other species of this *genus*, the Greater Spotted Woodpecker cannot be procured without considerable difficulty, as it instantly avoids the sight by creeping behind a branch; and we have frequently been disappointed of procuring it, even when the bird has been dreadfully wounded, for it will adhere with its sharp claws to the bark as long as life remains.

PICUS MINOR.

LESSER SPOTTED WOODPECKER.

Variegated with white and black; crown red, vent testaceous.

Picus Minor, Lin. Gme.

La Petite Epeiche, Buffon.

Lesser Spotted Woodpecker, Lath. Bew.
Don. Mont.

Lest Spotted Woodpecker, Pennant.

PROVINCIAL.

HICKWALL, CRANK-BIRD.

This species measures about six inches in length, and the alar extent eleven inches. Its weight, according to Montagu, is not quite five drams; other authors say nearly an ounce.

The crown of the head, which in the male is red, is in the female white. She lays five white eggs, deposited as in the other species, on the rotten wood, without any nest—the young birds resemble their parents.



J. Hunt Aug. 1. 1866.

Picus Minor.



This bird is much more scarce than either of the preceding species, but appears to be more familiar, frequently entering orchards, and even approaching towns. We have frequently seen this species on some willow trees, at the extremity of our garden, (in the city of Norwich) not only during the summer months, but also in the winter season, running up the branches with great celerity. It inhabits Europe and Asia. The tail-feathers are more rounded at the ends than those in the other species.

PICÆ.

GENUS 23.

SITTA.—NUTHATCH.

Gmelin gives the following as the characters of this genus.

Bill; Subulate, roundish, straight, entire; upper mandible a little longer, compressed, and angular at the tip.

Tongue; Jagged, short, horny at the tip.

Nostrils; small, covered with bristles.

Feet; formed for walking; hind toe long.

This genus contains twelve species, only one of which has been found in the British Isles. In their habits the different species form a considerable alliance to the Woodpeckers. Most of them feed on insects, and some on nuts, whence their English name is derived.





Sitta Europaea.
Nuthatch.

SITTA EUROPÆA.**NUTHATCH.**

Cinereous, beneath reddish; tail-feathers black, the four lateral ones beneath tipped with white.

Picus Cinereus, Aldrovandi.

Sitta Europæa, Lin. Gme.

La Sittelle, ou Torchepot, Buffon.

Nuthatch, Pen. Lath. Mont. Bewick.

PROVINCIAL.

**NUTJOBBER, WOODCRACKER, MAY
WOODPECKER, BLUE WOODPECKER,
MASON WOODPECKER, CREEPER,
WAGTAIL, NUTCRAKER.**

This species measures nearly six inches in length, and about nine inches in the expansion of its wings.

The female is of a much lighter colour about the sides and thighs than the male, but its general appearance is much the same. It commonly contents itself with the deserted habitation of the woodpecker,

for its place of nidification. This hole the bird is at particular pains to render more convenient and secure; for if larger at the entrance than is necessary for its own admission, it artfully contracts it by a plaster of clay, leaving only just sufficient room for its ingress and egress; a circumstance from which the French have called them *torche pots*. The abode of the Nuthatch, when thus constructed, has hardly any appearance of being the receptacle of birds, to those who view it from without. There, however, upon a layer of the dust of the wood and dead leaves, she deposits six or seven eggs, white, spotted with rust-colour, so similar to those of the greater titmouse, that it is almost impossible to distinguish the difference, and so affectionately tenacious is this bird of her nest, that no persecution will force her from the habitation when sitting; she will defend herself to the last extremity, striking at the invader with all her strength, making at the same time a hissing noise, and after every effort of defence has been tried in vain, will suffer

herself to be taken rather than quit her progeny or her eggs. If the barrier of plaster at the entrance of the hole is destroyed, when she has eggs, it is astonishing how speedily it is again constructed.

The Nuthatch seldom migrates from one country to another, but constantly resides where it is bred, only that in winter it seeks warm aspects, approaches dwellings, and visits our orchards and our gardens. It is much more expert in climbing than the woodpecker; running in all directions up and down a tree with the greatest facility.

The English name is undoubtedly derived from their breaking nuts with their beak. "It is pleasing (says a celebrated author) to see them bring a nut from their hoard, and place it firm in a chink, and then standing above it, with their heads downwards, strike it with all their force till they break it, when they scoop out the kernel." This, with the common hazel nut is a work of some labour; but the filbert is broken with

case. In the Autumn it is no uncommon thing to find in the crevices of the bark of an old tree, a great many broken nutshells, the work of these birds, who repeatedly return to the same spot for this purpose. They feed not only upon nuts, but also upon insects of almost every description; and have also been seen during the cyder season, picking up the seeds from the refuse of the pressed apples.

The tail of the Nuthatch has an alternate motion like some of the *motacilla* genus, and another peculiarity observable in this bird is, that it seldom squats in the natural position, or with its head erect; it is commonly awry, or even hanging downwards; it is supposed that it sleeps in holes of trees, as those which have been kept in confinement, though sometimes mounting upon a perch, and resting with the head mostly downwards, yet were never observed to roost upon it at night. In the spring it has a remarkable loud shrill whistle, which ceases after incubation; in the autumn it has a double reiterated cry. The singular noise which some

authors have erroneously attributed to the Nuthatch, is no doubt occasioned by the Woodpeckers.

Linnaeus observes that it inhabits Europe and Asia, that it sings by night, and that the flesh of the young is very good.

PICÆ.

GENUS 25.

ALCEDO.—KINGFISHER.

This *genus* which is supposed to be spread over every part of the globe, contains forty-three species besides varieties, the distinguishing characters of which are—

Bill; triangular, thick, straight, long, pointed.

Tongue; fleshy, very short, flat pointed.

Feet; (in most) gressorial.

These birds mostly frequent rivers, and live on fish, which they catch with much dexterity. They swallow their prey whole, but bring up the undigested parts in form of pellets. The wings of most of the *genus* are very short, yet they fly with great strength and rapidity. The three lower joints of the middle toe are closely joined to the outermost.

In some of the islands of the South



Hunt

Alcedo ispida.

Kingfisher.



Seas, some of the *species* are held in a kind of superstitious veneration by the natives of the places they severally inhabit, perhaps on account of their being seen flying about the *morais* or burial places.

ALCEDO ISPIDA.

KINGFISHER.

Tail short; body above blue, beneath tawny; lores reddish; crown waved with black; sub-crested.

Alcedo Ispida, Lin. Gme.

Le Martin-pecheur, Buffon.

Kingfisher, Pen. Lath. Bew.

Common Kingfisher, Montagu.

The Kingfisher is by no means elegant in its form, but its colours are certainly more vivid than those of any other European bird. It measures seven inches in length, and about eleven inches in the expansion of its wings. The beak of the female is not so long as in the other sex. She chooses most commonly for her place of nidification the deserted hole of the water rat, in the bank of a clear running stream. For some time previous to the hen laying her eggs, both sexes may be observed retiring to that spot for the pur-

pose of ejecting the undigested parts of their food, and there appears to be no doubt, that this substance is afterwards dried by the heat of their bodies, as they have frequently been known to continue in the hole for a considerable time, and this, long before there have been eggs. On this disgorged matter the female lays from five to seven eggs, of a beautiful transparent white, and of a short oval form.

Before the young are able to leave the hole, it becomes extremely fetid by the fæces of the brood, which being of a watery nature, cannot be carried away by the parent birds, as is common with most of the smaller species. In defect of which, instinct has taught them to have the entrance to their habitation ascending, by which means the filthy matter runs off, and may frequently be seen on the outside. This we suppose was the occasion of the error propagated by some authors, namely, "that the female plasters the interior of her habitation with her excrements, which hardens as soon as exposed to the air, and

entirely prevents the water from penetrating." When the young are nearly full feathered, they are extremely voracious, the old birds not being capable of supplying them with sufficient food to satisfy their calls of hunger; at this time the young may be discovered by their noise. It is probable that the old birds eject the food for their young from the stomach, as those who have paid particular attention to the subject never could discover any food in their beaks when they went to feed their young.

The Kingfisher (as its name imports) feeds entirely upon small fish. It may often be observed to sit for a considerable length of time upon a branch, a stone, or stump by the banks of running streams, watching the motions of the fish; and, when any approach sufficiently near, darting upon them with unerring certainty. It brings its prey alive to land, and beats it to death previous to swallowing it. It also may be seen balancing itself at a certain distance above the water for a considerable space, then darting into the deep and seizing its prey.

In the winter season numbers of these birds frequent the banks of the rivers near this city, and we have known many instances of their having been taken alive, and kept for a considerable time upon small fish. We are also acquainted with an instance of a gentleman procuring the young of this species, which he kept for some weeks upon small pieces of fish, and we doubt not would have succeeded in rearing them, had they not been destroyed by a cat.

This bird inhabits various parts of Europe, Asia, and Africa, and is the only species belonging to this *genus* ever taken in the British Isles.

Many persons believe that, when the body of a Kingfisher is suspended by a thread, that its breast always turns to the north. This, however, is as fabulous as the tradition that it will preserve woollen cloth from the depredations of the moth.

The ancient name of this bird was Aleyon or Halecyon, and its history appears to have supplied to the mythologists and poets of antiquity, an ample theme for

imagery and fable. Its nest was said to resemble those concretions that are formed by the sea-water, and to be fashioned like a long-necked gourd; that the entrance was very narrow, so that, should it overset, the water could not enter; that it resisted any violence from iron, but could be broken with a blow from the hand; and that it was composed of the bones of fishes. On this foundation other writers added tales equally as absurd; and poets indulging the powers of imagination, dressed them in all the robes of romance. The nest of the bird was made to float upon the placid face of the ocean; Æolus bound up his winds; Alcyone, his plaintive solitary daughter, still called on the billows to restore her hapless Ceyx, whom Neptune had drowned, &c. This kind suspension of the horrors of the season, this happy interval of calm, was granted to the Alcyon to breed her young, they were therefore called Alcyon days, during which period the mariner might sail in full security. The hardy sailors of the present day do not, however, find

that it has the power either to calm the storm, or still the winds. Dryden's Translation of Ovid contains the following:

“—————Alcyon, compress'd,
Seven days sits brooding on her watery nest,
A wintry queen, her sire at length is kind,
Calms every storm, and hushes every wind.”

In after times, the word Alcyon has been made to express any season of prosperity. The bird not only calmed the sea, but preserved, where it was kept, the peace of families; it was a sure protection against thunder, and augmented hidden treasures. These fables have flattered and pleased the credulous, but unfortunately they are only the offspring of a heated imagination.

The Ostiaks and Tartars of the present day employ the feathers of the Kingfisher for many superstitious uses. After plucking the bird, they cast the feathers into water, and carefully preserve those which float, pretending that if with one of those feathers they touch a woman, or even her clothes, she falls in love with them immediately. They also take the skin, the

beak, and claws of this bird, and shut them up in a purse; and as long as they preserve this amulet, they believe that they are beyond the reach of every misfortune.





Merops Apiaster.
Common Bee-eater.

PICÆ.

GENUS 27.

MEROPS.—BEE-EATER.

This *genus* contains twenty-six species, besides varieties. Their distinctive *generic* characters are as follows:

Bill; curved, quadrangular, compressed, carinate, pointed.

Nostrils; small at the base of the bill.

Tongue; slender, the tip generally jagged.

Feet; gressorial.

The Bee-eaters are natives of the four quarters of the globe. They live upon insects, particularly bees and wasps, but, in defect of these, their favorite food, will content themselves with different kinds of seeds. Their nests are in general formed in the holes of banks, and their voice harsh and grating.

The following is the only species ever known to have been taken in the British Isles.

MEROPS APIASTER.
COMMON BEE-EATER.

Back ferruginous; belly and tail blueish green; two of the tail-feathers longer; chin pale yellow.

Merops Apiaster, Lin. Gme.

Le Guessier, Buffon.

Common Bee-eater, Montagu.

Bee-eater, Latham.

The length of the Bee-eater is ten inches, and the alar extent sixteen or seventeen inches.

The female nestles like the Kingfisher, in the bottom of holes, which they form with their short and strong feet, with the assistance of their beaks, in little hillocks where the soil is loose, and sometimes in the shelving sandy brinks of large rivers. In these holes on a bedding of moss, are deposited from four to seven white eggs, rather smaller than those of the Blackbird.

These birds are said to be gregarious not

only during their migrations, but also during the breeding season. They are very numerous in some parts of the Russian empire, particularly about the rivers Don and Wolga, the banks of which are in some places so perforated by these birds for the purpose of incubation, that they appear at a little distance like honeycomb. They are also found in vast numbers about the ridges of the mountains in the island of Candia, where the abundance of thyme affords rich pasture to the bees and wasps. They are also found in most of the islands in the Mediterranean, in Italy, France, Spain, Germany, and sometimes in Sweden.

In the island of Candia the boys (taking advantage of the bird's partiality for insects, which it always, like the Swallow, catches upon wing,) pass a bent pin or small hook through the body of a living bee or wasp, to which is fastened a long piece of thread, the insect flies into the air, and the unwary bird strikes at the insect and is caught by the hook. It is curious to observe that Aldrovandus mentions the same practice to have pre-

vailed in his own time in Italy, where the Cicada was the favorite bait.

The flight of the Bee-eater is similar to that of the swallow, and the formation of its feet to those of the Kingfisher. Though frequenting many parts of Europe, Asia, and Africa, it has very seldom been taken in Britain. The following extract is taken from the minute book of the Linnæan Society.

“July 2nd, 1794. The president communicated an account of the *Merops Apiaster*, the Bee-eater, having been shot (for the first time in Great Britain) near Mattishall, in the county of Norfolk, by the Rev. Mr. George Smith. The identical specimen was exhibited, by permission of Mr. Thomas Talbot of Wymondham. A flight of about twenty was seen in June, and the same flight probably (much diminished in numbers) was observed passing over the same spot in October following.”

Montagu observes that since the above period, he has been credibly informed that more than one specimen have been killed in England.

PICÆ.

GENUS 28.

UPUPA.—HOOPOE.

This elegant *genus* of birds, contains ten species besides varieties; their distinguishing characters are—

Bill; arched, long, slender, convex, a little compressed, somewhat obtuse.

Nostrils; small at the base of the bill.

Tongue; obtuse, entire, triangular, very short.

Feet; formed for walking.

The Common Hoopoe is the only species belonging to this *genus*, ever taken in these islands.

UPUPA EPOPS.
COMMON HOOPOE.

Variegated with blackish and rufous white; beneath, reddish-white; crest, pale-orange tipped with black; tail, black with a white bar.

Upupa Epops, Lin. Gme.

La Huppe, Buffon.

Hoopoe, Pen. Lath. Bewick.

Common Hoopoe, Montagu.

This beautiful bird may be readily distinguished from others that visit this country, by its singular crest, which it can erect or depress at pleasure. It measures twelve inches in length, and about nineteen inches in the alar extent.

Both sexes agree in plumage.

The female is said to make its nest with bents, grass, and other soft materials, in old decayed and hollow trees. Montagu says it lays four eggs of a "blueish-white, marked with pale brown spots;" other





authors describe them to be of an ash-colour. The nest has been remarked to be extremely fetid, and some authors have asserted, that it was made with human excrements. This bird is only an occasional visitant in this country, and that, not at stated seasons; and instances have not been wanting, to prove that they have sometimes bred with us.

In May, 1815, we received a specimen killed near Cley; and in the same month, we received another specimen killed in the neighbourhood of Aylsham, in this county. On the first day of September, 1817, R. Hawkes, Esq., of this city, shot a fine specimen; and we have likewise had specimens which were shot in November and December. It has been taken in almost every part of Great Britain, and is an inhabitant of most parts of the Old World, from Lapland to the Cape of Good Hope. Throughout the whole of Europe they are birds of passage, never remaining the whole year, even in the mild climates of Greece and Italy.

They are seen among those vast crowds

of migratory birds that twice every year pass the island of Malta. They are also observed every year at Gibraltar, in the month of March, on their passage to the north, and are there called *March Cocks*. In Turkey they are called *Tir Chaous* or the Messenger Bird, from the resemblance their crest has to the plumes worn by the *Chaous* or Turkish Couriers. In Sweden their appearance is deemed portentous of war.

Sonnini in his *Egyptian Travels* says, that "there is scarcely one sandy spot however small, provided it be in the neighbourhood of cultivated lands, where Hoopoes are not seen scratching with their feet, and thrusting their long bills into the ground, in search of insects which abound in these parts."

The flight of the Hoopoe is similar to that of the Woodpecker.

The Latin *Upupa* appears to be formed from the note of the bird, *pou, pou*, and ancient Mythology pretends to give us the origin of this cry. Tereus, king of Thrace, having ravished Philomela, the

sister of his wife Progne; the latter in revenge, killed her son by him, and served up the flesh at her husband's table. Upon the discovery of this horrid repast, Progne was changed into a Swallow, Philomela into a Nightingale, and Tereus into a *Hoopoe*; who still bemoaning his loss, screams *where! where! where! my son!*

Ovid has the following lines relating to this circumstance.

“Tereus, through grief and haste to be reveng’d,
 Shares the like fate, and to a bird is chang’d.
 Fix’d on his head the crested plumes appear;
 Long is his beak, and sharpen’d as a spear.”

PICÆ.

GENUS 29.

CERTHIA.—CREEPER.

Gmelin enumerates seventy-seven species (besides varieties) belonging to this *genus*; the distinguishing characters of which are—

Bill; arched, slender, somewhat triangular, pointed.

Tongue; various, generally pointed.

Feet; formed for walking.

This tribe of birds appears to be dispersed through most countries of the habitable globe. They feed chiefly on insects, in search of which they creep very nimbly about trees, both ascending and descending, both on the upper and under side of the branches; they run swiftly along beams, clasping the edges with their little feet; breed in hollow trees, and lay numerous eggs; their nostrils are small, tail-feathers twelve in

number; their legs are in general long in proportion to their size, and their hind claw stout and much hooked; their tongue mostly sharp, but in some species flat at the tip, and in others fringed or tubular. Many of the foreign species of Creepers resemble the Humming Birds, not only in size, but also in the brilliancy of their plumage.

CERTHIA FAMILIARIS.
COMMON CREEPER.

Grey; beneath white; quill-feathers brown; ten of them with a white spot.

Certhia Familiaris, Lin. Gme.

Le Grimpereau, Buffon.

Common Creeper, Pen, Lath. Mont.

Creeper, Bewick.

PROVINCIAL.
TREE-CLIMBER.

The Common Creeper is the only species belonging to this *genus*, ever met with in the British Isles. Its length is rather more than five inches, and its breadth seven inches and a half. The length of its feathers, and its peculiar mode of ruffling them, gives this bird an appearance much larger than it really is. The female resembles the other sex in plumage, but its tail is shorter, and not so much forked. She makes her nest in a hole, or behind the bark of a decayed



Certhia familiaris. — Creeper. *Little Wren*



tree, which nest is composed of dry grass and the inner parts of bark, loosely put together, and lined with feathers. Pennant says that it lays twenty eggs, but we have no doubt that this is an error. From six to eight is the utmost number. These eggs are white, minutely speckled with bright rust-colour. During the time of incubation the male is very assiduous in supplying her with food. The note of the Creeper is monotonous and weak, several times repeated, but it is rarely heard in winter. Its food consists entirely of Insects and their larvæ, in search of which it appears to be constantly employed; and it is most probable that this little species have the faculty of casting up the more indigestible parts of their food in small pellets, after the manner of the Falcons, as such refuse may frequently be found in the vicinity of their nests.

This bird is very frequent in this country, and may constantly be found in most orchards, or in woods containing Oaks, but it soon escapes observation from the facility it is endowed with, of running upon the bark,

It seems peculiarly fond of the society of man, and it must be confessed that, in some parts of the world, it is often protected by his interested care. It is not only an inhabitant of Europe, but is likewise found in Asia and America. From observing its utility in destroying Insects, it has long been a custom, in many parts of the United States, to fix a small box at the end of a long pole, in gardens and about houses, as a place for it to build in. In these boxes the little creatures form their nests and hatch their young; which the parent birds feed with a variety of different insects, particularly those species most injurious to gardens. Barton in his *Fragments of the Natural History of Pennsylvania*, informs us that “a gentleman who was at the trouble of watching these birds, for the purpose, observed that the parents generally went from the nest and returned with insects from forty to sixty times in an hour, and that in one particular hour they carried food no fewer than seventy one times. In this business they were engaged the greater part of the day. Allowing twelve hours to be

thus occupied, a single pair of these birds would destroy at least six hundred insects in the course of one day; on the supposition that the two birds took only a single insect each time. But it is highly probable that they often took more."

BRITISH BIRDS.

ORDER III.

ANSERES.—WEB-FOOTED BIRDS.

The following are the characters by which the birds belonging to this Order are distinguished;

Bill, somewhat obtuse, covered with a skin, gibbous at the base; mouth toothed.

Tongue, fleshy.

Feet, palmated, formed for swimming.

This *Order* is divided by Gmelin in his Edition of the System of Nature into the following *Genera*.* Viz. Genus 31, *Anas*, including the Swan, Goose, Duck, &c. Genus 32, *Mergus*, the Merganser. Genus 33, *Alca*, the Auk. Genus 34, *Aptenodytes*, the *Penguin*. Genus 35, *Procellaria*,

* Those printed in Italics were never found in the British Isles.

the Petrel. Genus 36, *Diomedea*, the *Albatross*. Genus 37, *Pelecanus*, the *Pelecan*. Genus 38, *Plotus*, the *Darter*. Genus 39, *Phaeton*, the *Tropic Bird*. Genus 40, *Colymbus*, the *Guillemot*, *Diver*, and *Grebe*. Genus 41, *Larus*, the *Gull*. Genus 42, *Sterna*, the *Tern*. Genus 43, *Rynchops*, the *Skimmer*.

The general conformity of these Birds, exhibits fully the fitness of their destination to that element in or near which their lives are entirely spent. The body of the Swimmers or Web-Footed Birds is arched beneath, and bulged like the hulk of a Ship, (and this figure it is not very improbable to conjecture gave the first idea to our rude ancestors in the construction of their vessels) the neck, which rises on a projecting breast, may be said to represent the prow; their short tail, collected into a single bunch, serves as a rudder; their broad and palmated feet, perform the office of oars; and their thick down glistening with oil (which entirely invests them) is impenetrable by humidity, and at the same

time enables them to float more lightly on the surface of the water. The habits and œconomy of these birds correspond also with their organization; they float on the billows with as much ease and with more security than they soar in their native element. Their provisions are ever abundant, their prey cannot escape their pursuit: some plunge into the waves, others only sweep the surface of the water; all of them dwell on the fluctuating face of the deep, they live a life of tranquility amidst the storms; they seem even to play with the billows, to contend with the winds, and to expose themselves to the vehemence of the tempest without apprehending or suffering shipwreck, indeed, they are never happy but in this, their appropriated element and seems averse to alight on the land (perhaps from the soles of their feet being softened by continual bathing) even when the most powerful dictates of Nature “Increase and Multiply” impels them to the shore they take frequent excursions into the sea, and as soon as their young are hatched, they take them into their proper element.

Very different from those tyrants of the air and of the land, which spread through their empire disorder, devastation, and war, the winged inhabitants of the water, live in perfect harmony with each other, and are never polluted with the blood of their kindred. Smaller force is required in swimming than in flying: and the element which they inhabit perpetually yields them subsistence: they rather meet with their prey than search for it; and often a friendly wave conveys it within their reach, and they seize it without trouble or fatigue. Each species congregates through mutual attachment. They never attack their companions, nor destroy other birds; and in this great and amiable nation, the stronger seldom oppress the weak.

These birds generally speaking have a keen appetite, and are furnished with corresponding weapons. Many species have the inner edges of their beak serrated with sharp indentings, the better to secure their prey: almost all of them are more voracious than the Land Birds; and there are some species devour indiscriminately carrion and entrails.

Their voice is strong, harsh and loud, and the ear of the mariner is often pierced with their shrill cries, screamed forth in mingled discord with the roaring of the waves. Grating as their cries are, these birds are often hailed as his only pilot, while he is tossed to and fro, amidst solitary rocks and isles, inhabited only by the sea-fowl.

Although it is not certainly known to what places some of these birds retire to breed, yet it is ascertained that the greater part of them hatch and rear their young on the rocky promontories and inlets of the sea, and on the innumerable little isles with which the extensive coast of Norway is studded from its southern extremity, the Lindesness, or Naze, to the North Cape.

The bleak shores and isles of Lapland, Siberia, Spitzbergen, Nova Zembla, Iceland, Greenland, &c. with the vast swamps of the Arctic Zone, are also enlivened in their seasons by swarms of Sea-fowl, which range the intervening open parts of the seas to the shoreless frozen ocean. There a barrier is put to further enquiry, beyond

which, the prying eye of man must not look, and there, his imagination only must take the view, to supply the place of reality. In these forlorn regions of unknown space, this reservoir of frost and snow, where firm fields of ice, the accumulations of centuries of winters, glazed in Alpine heights above heights, surround the pole, and concentrate the multiplied rigours of extreme cold; even here, so far as human intelligence has been able to penetrate, there appears to subsist an abundance of sea-fowl.

In the Hebrides and Feroe Islands vast numbers of these birds are known to breed, and as their young, together with their eggs, form the principal support of the Inhabitants of the latter islands, it may not be amiss in this place to give a description of the method made use of to procure them. We shall give it in the words of the Revd. G. Landt, extracted from his History of the Feroe Islands. After giving an account by which some of the species are taken and which in some measure resembles a method made use of in this

country, he proceeds. “ But by this method fowls are caught only on a small scale: to catch them on a more extended one, it is necessary to ascend to a considerable height in the rocks; and it is really astonishing to see to what heights the fowlers will proceed, and to what dangers they expose themselves in this occupation. On these occasions two men go out in company, and both of them make themselves fast to a rope, but in such a manner that there is the distance of eight or ten fathoms between them. The first man is assisted by the second to ascend the rock, and for this purpose the latter employ a pole twenty four feet in length, having at its extremity an iron hook, which is made fast in the waistband of his breeches, or in a rope tied about his middle, or, what is more common, a piece of board is fixed to the end of the pole on which the climber sits, and when he has got a firm footing, he assists his companion to get up by means of the rope fastened round both their bodies; but they both carry their fowling-poles along with them. In this

manner the second assists the first to clamber up by the help of his pole, and the first helps the other by means of the rope from one projection to another; but when they have a dangerous place to ascend, before they get to parts frequented by the fowls, the first must have a secure place of rest, that he may be able to support the other in case he should be so unfortunate as to fall. It frequently happens, however, that the one in his fall pulls down the other, so that they both become a sacrifice to their temerity. In these almost inaccessible places, and particularly such as are seldom visited by man, they find the fowls so tame that they can lay hold of them with their hands; but where the fowls are shy, they cast their net over them with their fowling-pole, and at one throw, and in one hole, will sometimes catch from ten to twenty fowls."

"When the rocks are so high and steep that it is impossible to climb up them, it then becomes necessary that the fowler should descend from the top. This is done in two ways: a rope three inches

thick and a hundred fathoms in length,* is made fast at one end around the fowler's middle; a broad woollen band, which passes round his thighs, is fastened also to the rope; and by these means he can sit more at his ease, and continue his labour for several hours. The rope is held fast by six men, who let the fowler, with his fowling-pole in his hand, glide down the rock; and to prevent the rope from being cut by the hard edges of the rock, a piece of smooth wood is placed below it, in order to glide upon; but as the men who hold the rope cannot see when the fowler has got to the place where the fowls are, they have also a small line, one end of which is brought round the fowler's body, and by pulling this line he gives notice to the men when to lower the rope, when to stop it, and when to draw it up. The fowler directs his course with his fowling-

* If one of such length be not necessary, a shorter one is employed; but there are some cliffs of such an immense height that the fowler must tie two, and even three ropes, each a hundred fathoms in length.

pole until he reaches the projection where the fowls construct their nests; there he looses the rope from his body, and makes it fast to a stone, to prevent it from escaping him, and then he goes round catching the fowls with his hands, or cast the net over them in the manner already described; or he places himself on some projecting shelf which the fowls fly past, and it is here that he displays his dexterity in the use of the fowling-pole in what is called *fleining*. The afternoon or calm weather is the time chosen for this purpose; but in particular the wind must blow towards the rock, because in that case the Puffin approaches nearest to the land. When the fowls come so near the fowler that he can reach them with his pole, he raises it towards them, and is pretty certain of catching one in his net, and to prevent the fowl from disengaging itself, he turns the pole a little round, so that one of its arms stands upwards and the other downwards, by these means the fowl hangs in the pocket of the net, below one of the arms, and is thus inclosed that

it cannot get out; but as the fowls are continually flying by, great speed and dexterity are requisite. At each stroke the fowler in general catches one, and sometimes two or three; and in one afternoon a man in this manner will catch two, three, and even four hundred. Sometimes the fowler undertakes this labour while he is suspended by the rope. But there are some cavities where the fowls build their nests which recede so far from the perpendicular direction of the rock, that the fowler, when he descends to them by help of the rope, hangs so far from them in consequence of the projecting shelf, as to be at the distance of several fathoms from the holes where the fowls reside. In this case he must throw himself so far out from the rock, by means of his pole, as to be able to swing with the rope under the shelf to the proposed place, and to secure a footing. On such occasions he can without help give himself a swing to the distance of thirty or forty feet; but if the cavity proceeds further into the rock, so that a very great

swing is necessary to reach it, he fastens a small line to the end of the suspending rope on which he sits, and a man in a boat at the bottom of the rock, who holds the other end of the small line, can by pulling it make him swing to the distance of a hundred or a hundred and twenty feet."

"The fowls when caught are killed by twisting their necks; they are then bound together in bunches, and either drawn up to the summit of the rock, or cast into the sea, where they are picked up by people in boats, who are stationed below for that purpose."

In order to give some idea of the vast quantity of birds frequenting the Feroe Isles we will conclude this article with an abstract or two, from the same author's account of the Isle of Stromoe, &c. "Sea-fowl are found here also in great abundance: the rocks principally frequented by them are situated towards the north, and exhibit in summer, at which time they swarm with them, a very singular appearance. The following short description will serve to convey a faint idea of

it. Before the rock which forms the sea-coast stands a long rock, resembling a wall, which raises to the height of twelve hundred feet, so that it is almost equal in height to the coast itself, the bottom of this rocky wall, which throws out many projections, is almost entirely covered with fowl, which, as they are seldom scared by the presence of man, and still seldomer hear the report of a gun; are exceedingly tame. All the shelves and cavities of this rock are also filled with them. It has an opening in it like a lofty gateway, through which you can proceed in a boat towards the coast, and when within it, you can perceive that this wall stands at a distance from the coast, so that a long channel is left between them; and this channel is so wide as to admit a boat to turn in it. As the rock consists of several strata, and as the thinnest of these in general is hardened clay, which is softer than the other strata, these layers of clay are in many places washed out and destroyed by the force of the waves, and leave cavities which serve the fowls as places

of resort, where they build their nests and rear their young. On the upper edge of the harder strata the fowls, with their white breasts projecting, arrange themselves in rows one above the other, as regularly as if they were porcelain figures disposed on shelves; and if they have not been before frightened by firing at them, you may shoot several of them before they are aware of their danger, and without the rest being in the least disturbed. Those even which were placed close to the fowls that have been killed remain quiet in their places, and those which concealed themselves further back in the cavity readily come forwards to occupy the places of those that have been shot; so that the row is again soon completed. To describe this spectacle properly is impossible; no pen can do justice to it; to form a proper conception of it one must have actually seen it."

In another part of his work he says the numbers of fowl exceeds every thing that can be imagined. "At certain periods they almost darken the air, and they stun

the ears so much with their piercing cries, that two people in the same boat cannot hear each other." "In one excursion four thousand fowls may be caught."

ANSERES.

GENUS XXXI.

ANAS.—DUCK.

The Linnæan characters of this genus,
are

Bill, convex, obtuse, the edges divided
into lamellate teeth.

Tongue, fringed, obtuse.

Three fore-toes, connected, the hind-one
solitary.

Gmelin enumerates one hundred and
eighteen species, besides varieties belong-
ing to this *genus*, which he divides into
two parts; the first of which includes those
whose *Beaks* are *gibbous at the base*, and
the second those *whose beaks are equal at
the base*.

The Birds comprised in this *genus*, live
for the most part upon the water, swim-

ming with grace and facility. Their food consists of fish, insects, shell-fish, vegetables and grain. Some procure their food by plunging their long necks under water, others search for it by diving, and are able to remain a considerable time under water. The greater part of them dive when closely pursued.

Many of the species are very difficult to identify, and it is not astonishing that many errors were committed, when the outward appearance was considered as the only guide. Montagu has thrown much new light upon the subject, and proved by endeavouring to domesticate many of the species, not before attempted, that the young males in most species, continue to resemble the female parent during the first season, and even that the adult males in some of the species moult twice in the year, and are at each moulting, so different in plumage, that it would be impossible to consider them as belonging to the same species, were they taken at those times in a state of Nature.

In the present work where it may be in

our power to procure recent specimens, duplicate plates will be given in these changes of Plumage, and we trust that the Histories and Portraits given in this portion of our work, will be found as ample, and correct as the present improved state of Ornithology will admit of, but we cannot help expressing our doubts that much still remains to be elucidated.

The different sexes of birds may (particularly during the Spring) be discovered by a careful examination of their internal structure. The organs peculiar to the *male* sex, consists of two glandular bodies placed just below the lungs, close to the back bone, and those of the *female* may be discovered by the *ovaries*, or clusters of eggs situated near the same place. But at certain seasons, these internal distinctions are so nearly obliterated, as to deceive a very good comparative anatomist and much more so any person but slightly versed in such matters. Even admitting that it were at all times possible to ascertain the different sexes, yet we could not thereby discriminate the species, Dr. Latham in

his excellent Essay on the *Tracheæ*, or *Wind-pipes* of Birds, has done more towards the elucidation of this subject than any other writer, or than the productions of all his predecessors. Willoughby and other early writers upon Ornithology, had observed Nature's deviations from the usual structure in the formation of the *Trachea*, in different species of birds, some, gave it as their opinion that it served to increase the tone of voice. Others have supposed that the peculiarity of structure might be of use in diving. As far as the deviation from a cylindrical shape is concerned, it is observable that the peculiar difference in structure is to be found only in the *male* sex, the *female* never having the least enlargement in that part; for although many birds may be found having the *female* plumage, in which the *labyrinth* is equally conspicuous with the other sex, yet we may venture to assert, that this part does not in the least differ from that in the adult male, except that the ossification is less complete, and we have no doubt that in every specimen where such enlargement of

the *trachea*, or *labyrinth* appear, upon a careful examination the *testes*, an indubitable mark of the *male* sex will invariably be found to accompany it. This being the case, the idea that such a conformation of the parts enables the bird to cry more forcibly than those which have no such construction, rests upon, but a slender foundation; particularly as it is well known, that the note of many of the *females* is much louder than that of the *males* belonging to the same species, and it cannot be denied, that some birds are able to utter loud cries without such aid: witness the Peacock and others. With respect to this peculiarity of structure having any effect in enabling the bird to dive with greater facility, or of remaining under water for a greater length of time, we cannot do better than quote the words of Dr. Latham. “ No one has authenticated to us that the *male* is able to stay longer under water than the *female*. Concerning the want or presence of an enlarged cavity, or *labyrinth*, as authors have called it, nothing can better suit our

purpose than the examples of the *Scoter* and *Velvet Duck*, the latter of which has not only an enlargement of the cavity at the bottom part, but likewise a large hollow in the middle, added to a third enlargement of the hollow bone just below the *larynx* ; but in the first-named not the least deviation from an uniformly cylindrical shape is seen throughout the whole of its length, in either sex :—yet wonderful to say, the *Scoter* has by far the greater facility of the two, in respect to diving and staying under the water, and on account of this property of diving becomes one of the most difficult birds to kill in its own element, as twenty shots have been made at one of these, by a good marksman, before one has taken effect. We cannot do amiss also to remind the reader, that none of the genus *Colymbus*, *Podiceps* or *Uria*, which have acquired the name of Divers from being so often under water, enjoy any materially different construction of the *Trachea* from the *Cock* and *Hen*, which are well known to avoid the water from instinct, neither can I discover that any thing oc-

curs in outward appearance, that should enable the *Corvorant*, *Shag*, and many others, to dive with such facility as they are known to do.* The Doctor continues thus “ We view Nature’s operations and admire them in course, yet cannot always comprehend the utility of her works ; this seems one of the designs concerning which we are not at all clear. It, too, must be confessed, that the whole we have been able to obtain by our scrutinising into this subject is, the security of a mark of distinction in respect to several species concerning which we have been more or less in a state of uncertainty.”

This subject being of the utmost consequence to those studying Ornithology, we

* The *Wild Swan* in which we observe a great elongation added to a peculiar curvature of the wind-pipe, is able to hold its head for a length of time under water in search of food ; but we have no authority for saying whether it can do so a longer time than the *Tame Swan* in which no such peculiarity is seen : besides, the *Common Crane*, and others of the *Ardea* genus which have not even the power to swim, are endowed with a much greater elongation and curvature of the wind pipe than the *Wild Swan*.

intend presenting our readers with plates of the *Tracheæ* belonging to as many of the species, as we may be able to procure in a recent state.

Montagu in order to render the subject more intelligible, has given names to the different parts ; which names we intend to adopt. The *aspira arteria* consists of three principal parts, viz. the *trachea* or windpipe, properly so called, the *labyrinth* or swelling at the lower extremity, and the *bronchiæ* or divarications at the bottom, which connects the *trachea* with the lungs.

He begins by making two divisions in the birds belonging to this *genus*. 1st. the Ducks with short wings, which he calls *Diving Ducks*. 2nd. *Grovelling Ducks*.

In the first division the *trachea* is composed of two distinct parts, one a *compressed chamber*, more or less covered with a thin membrane situated on the left side, which is called the *tympanum* ; at the back of which is another chamber, formed by the junction of the base of the *bronchiæ*, the bony rings of which are more or less united by ossification. This part has been

termed a bony box or *orca*, from its being usually ribbed like a dice box. From the bottom of the exterior *orca*, issues the right *bronchial* tube; the left from the base of the *tympanum*, which is not in immediate contact with the interior *orca*, so that the respired air must first pass into the cavity of the *tympanum*, in order to be received into the lungs.

We will exemplify the above, by a reference to the *trachea* of *Anas clangula*, (Golden Eye) *Fig. I, Plate III, a*, the *tympanum* of the labyrinth.—*b*, the bony arch that covers the *tympanum*.—*c*, the *bronchiæ*.

Fig. II,—*labyrinth* of ditto reversed.—*a*, the back of the *tympanum*.—*b*, the exterior *orca*.—*c*, the interior *orca*.

The *labyrinth* belonging to the second division, is much more simple: it consists of either one, or two sub-globular bony chambers, which are called *ampullæ*. In most of the species belonging to this division there is only one *ampulla* and that is situated on the left side, the right *bronchial* tube is connected with the *trachea*;

the left proceeds from the base of the *ampulla*, but, in those species with two *ampullæ*, the *bronchiæ* are partly connected with the bony base of the *trachea*, and partly with the *ampullæ*, so that there is a free circulation of air through those chambers.

This will be better understood by a reference to the *trachea* of *Anas boschas*, (Mallard) Plate IV.

WITH ONE AMPULLA BUT NO TYMPANUM.

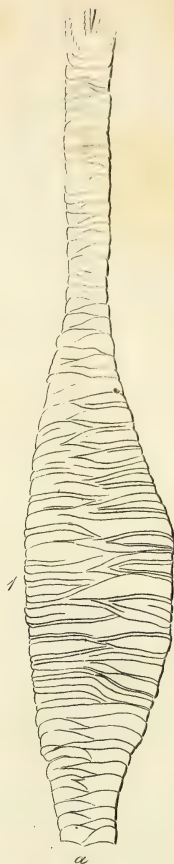
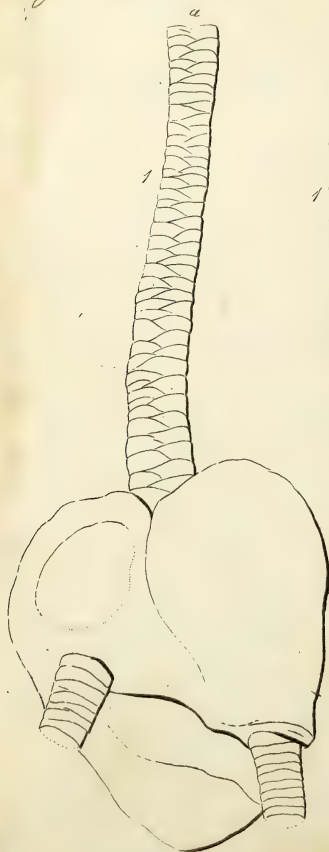
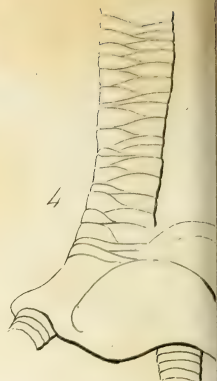
Fig. 3. *a*, the front of the *ampulla*. *b*, the *bronchiæ*,

WITH TWO AMPULLÆ BUT NO TYMPANUM.

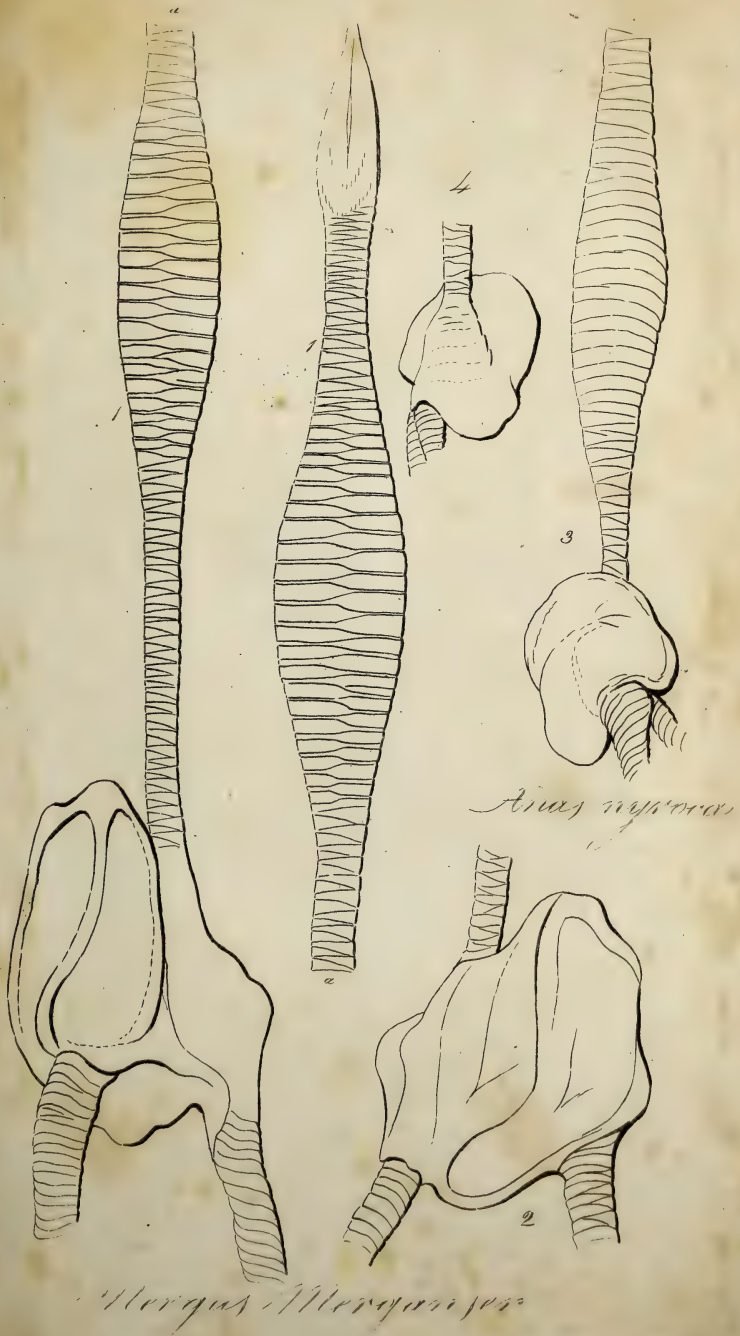
Refer to the *trachea* of *Anas tadorna*, (Shieldrake).*

* Altho' the genus *Mergus* does not strictly belong to this place, we, have thought proper, in order that an easier reference may be made, to introduce plates of the *tracheæ* belonging to the British species of that genus; see *Plates I. and II.*





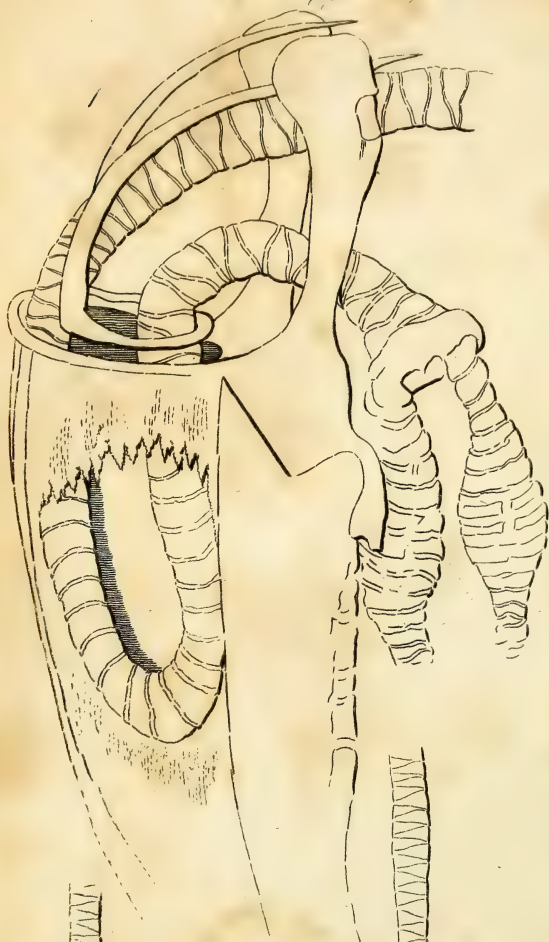
Mergus serrator



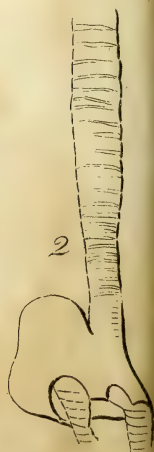




Anas Cygnus (fa)



Anas Penelope



Anas Strepera

Anas boschas.



Anas fusca.

Anas clangula.





DIVISION 1.

BEAK GIBBOUS AT THE BASE.

ANAS CYGNUS.

WHISTLING OR WILD SWAN.



Bill semi-cylindric, black : cere yellow.

Anas Cygnus, Lin. Gme,

Cygne Sauvage, Buffon.

Cygne a bec jaune ou sauvage, Temminck.

Wild Swan. Lath. Pen. Bew. Mont.

PROVINCIAL.

GERMAN SWAN, ELK OR HOOPER.

Many authors have considered the *Wild* and the *Tame Swan*, as varieties of the same species, but independent of the difference which is observable in the external appearance, the formation of the *trachea* as well as the *breast-bone* itself is so strik-

ingly different, as to prove at once that there can be on identity whatever of the two species. The Wild Swan has likewise a small corneous spur a little arcuated and about half an inch in length placed at the extremity of the spurious or bastard wing.

At the time the paper on the *tracheæ* of birds was published in the Linnæan Transactions, by Dr. Latham, it was not known that there were any sexual difference in the formation of the *trachea* of this species. It has however been proved that there is a very great dissimilarity. In the *female* the windpipe after passing down the whole length of the neck enters the keel of the *sternum* or breast-bone about two inches and a half or three inches at furthest, and then returns and enter the breast, to communicate with the Lungs. In the *male*, the *trachea* extends down the cavity of the keel, and afterwards enters the breast-bone, where there is no longer room at the posterior part of the keel, and there the flexure is constrained to change its direction from a vertical to a horizontal position, becoming

orbicular, by being greatly extended laterally, and filling up the whole of the lower part of the breast-bone. Thus the lower part of the cavity that receives the *trachea* is very convex on the inside, and the bone is so extremely thin and membranaceous that the flexuous course of the *trachea* is easily defined through it. There are other slight differences, but as we have given correct figures* it is unnecessary to enlarge upon the subject.

The Wild Swan measures about four feet, ten inches in length, and seven feet in the expansion of its wings; but we have seen specimens which measured more, and others less.

The female does not differ from the male in plumage, but its weight and dimensions are somewhat less.

This bird is found in all the Northern countries Iceland, Lapland, the Deserts of Tartary and Siberia, as far as Kamtschatka, also in America and is not uncommon at Hudson's Bay. It visits

* In the plate the outer part of the bone is taken off, in order to expose the internal contents to view.

the Lakes of Scotland every winter, but comes more southward in severe weather. In the Feroe Isles they arrive in flocks early in the spring, and late in the autumn, where they stop a short time to rest in their migrations, to, and from, the more northern regions. A few of them remain at the Orkney Islands during the whole year, and build in the *holms* of the *loch* of Stenness. “Here in that fine piece of water” (says Low).

“ ——— The stately sailing Swan
Gives out his snowy plumage to the gale;
And arching proud his neck, with oary feet,
Bears forward fierce.”

“ But alas for the taste of our Orcadians!
he cannot”

“ ——— Guard his osier isle,
Protective of his young.”

Dr. Maton, in his *Western tour*, remarks that he saw the Wild Swan, on the eastern side of Chesel Bank in the month of August, and upon this authority Dr. Latham considers the species to be indigenous to Dorsetshire; but Montagu thinks

it possible, “ that a wounded bird of this species, incapable of migrating to the arctic regions to breed, might have induced its mate to remain also.” Such an accident only (he considers) would prevent its vernal migration.

Temminck says that it makes its nest upon land, in the midst of plants growing near the water ; and lays from five to seven eggs, of an olive green, covered with a whitish coat. This description of the egg, differs so materially from that given by Montagu, that it is impossible to reconcile the two accounts : the latter gentleman informs us that “ a female Whistling Swan shot near Bridgewater, in the year 1805, got the better of her wound, and was kept by Mr. Stone, with his geese for nearly two years, during which time she laid one egg.”* “ The egg (he says) is very small in proportion to the bird, being not near so large as that of a China Goose, and is regularly oval ; about three inches long, and of a ferruginous colour, with some white

* The egg and bird were afterwards presented to G. Montagu, Esq.

blotches about the middle, appearing as if artificially stained."

At the time the above author published the Supplement to his Ornithological Dictionary, the specimen just noticed was alive and in high health, living in the utmost harmony with other species belonging to this *genus*. "Towards the spring she becomes more clamorous, and impatient of confinement; but at all times will approach those persons in the habit of feeding her, and will take food from the hand, at the same time uttering those plaintive and harmonious notes, for which the species have been remarkable, and which is always attended with a singular jerk of the head. She usually carries her neck straight and erect, either upon the water or when stationary on land; but in walking the head is lowered and the neck reclining over the back. In the season of love she frequently flaps along the surface of the water, and would undoubtedly fly, if the precaution of annually cutting the feathers of one wing was omitted, for whatever might have been the wound that was the

cause of captivity, nature has performed a perfect cure. Her nature is gentle, timid, and sociable; will follow those with whom she is acquainted from one side of the menagerie to the other, especially ladies of the family dressed in white: is often turned out of her course by a pugnaceous male Shieldrake, and acts only offensively when food is the object, and then only where resentment is not expected. She eats but little grass on land, but will devour aquatic plants occasionally; barley, however, is her principal food, and she never attempts to touch bread which is sometimes thrown to other birds; nor will she devour small fish, which some of the diving ducks greedily eat."

This species (like some of the Falcons, &c.) vary considerably in the colour of their irides, in some they are of a pale yellow, in others of a dusky colour. The plumage of the young is described to be of a brownish colour during the first year, and one shot in the month of March had the feathers on the forehead and in front of the eyes of a dull orange; the rest of

the head and upper part of the neck behind brown: the under parts white tinged with rufous: the lower part of the neck behind, the upper parts of the body, scapulars, coverts, and tail cinereous grey. The beak flesh colour at the base.

In the month of August these birds loose their feathers to such a degree as not to be able to fly. The natives of Iceland, Kamtschatka, and other northern nations at that season, resort in great numbers to the places where they most abound; accompanied with dogs, &c. trained to the sport. These dogs are taught to seize the Swans by their long necks, which causes them to loose their equilibrium and become an easy prey. By this means vast numbers are taken every year.

The flesh is highly esteemed by those people as a delicious food, as are also their eggs. The skin of the legs and feet, are taken off entire and converted into purses, &c. The skins with the down on, are sewed together and made into garments of various kinds. The American Indians sometimes weave the down as barb-

ers weave the cawls for wigs, and then manufacture it into ornamental dresses for the women of rank, while the larger feathers are formed into caps and plumes to decorate the heads of their chiefs and warriors. They also gather the feathers and down in large quantities. and barter or sell them to the inhabitants of more civilized nations.

When flying before the wind, the Wild Swan is extremely swift on the wing, but when flying across or against the wind, it is not able to make any great progress. During its flight it emits a shrill sound, which have been compared to the words *whoogh, whoogh*.

It was from this species, that the ancients derived their fable of the Swan's being endowed with the power of melody. Embracing the Pythagorean doctrine, they made the body of this bird the mansion of the souls of departed poets, and then attributed to the birds the same faculty of song which they had thus possessed in a pre-existent state. And the vulgar not distinguishing between sweetness of numbers

and melody of voice, thought that real, which was only intended figuratively.

Buffon in his usual flowery style observes “ that it was not enough that the Swan sung admirably ; the ancients ascribed to it a prophetic spirit. It alone of animated beings, which all shudder at the prospect of destruction, chanted in the moment of its agony, and, with harmonious sounds, prepared to breathe the last sigh. When about to expire, they said, and to bid a sad and tender adieu to life, the Swan poured forth those accents so sweet, so affecting, and which, like a gentle and doleful murmur, with a voice low, plaintive, and melancholy, formed its funereal song, this tearful music was heard at the dawn of day, when the winds and the waves were still ; and they have been seen expiring with the notes of their dying hymn. No fiction of natural history, no fable of antiquity, was ever more celebrated, oftener repeated, or better received. It occupied the soft and lively imagination of the Greeks, Poets, Orators, even Philosophers, adopted it as a truth too pleasing to be

doubted. And well may we excuse such fables; they were amiable and affecting; they were worth many dull insipid truths; they were sweet emblems to feeling minds. The Swan, doubtless, chants not its approaching end; but in speaking of the last flight, the expiring effort of a fine genius, we shall ever, with tender melancholy, recal the classical and pathetic expression, *It is the song of the Swan.*"

ANAS OLOR.

MUTE, OR TAME SWAN.

Bill semi-cylindric, black; cere black; body white.

Anas Olor, Gmelin.

Le Cygne, Buffon

Tame Swan, Pen. Bew.

Mute Swan, Pen. Lath.

In the preceding article we have given our reasons for considering the Tame, as a distinct species from the Wild Swan. In the bird we are now about to treat of, little more occurs in respect to the formation of the *wind-pipe*, or of the *breast-bone*, than is to be found in the same parts of the Common Goose.

The Tame Swan is somewhat larger than the Wild species, and its weight proportionably more.

The female is not so large as the male,

the protuberance on the beak is smaller and the neck thinner in this, than in the other sex. She makes her nest of grass, &c. among reeds or rushes, near the water's edge; and lays from six to eight eggs,* and occupy about six weeks in hatching them.

The following anecdote related by Dr. Latham and copied into Bingley's Animal Biography, will serve to shew with what ardour the Swan protects her nest. "A female, while in the act of sitting, observed a Fox swimming from the opposite shore: she instantly darted into the water, and, having kept him at bay for a considerable time with her wings, at last succeeded in drowning him; after which, in the sight of several persons, she returned in triumph. This circumstance took place at Pensy in Buckinghamshire."

The following we were Eye-witness to. Some few years since as a party were going in a boat, through a narrow straight

* The eggs are subject to considerable variation in colour, some of them being quite white, and others of a dull green.

leading into Surlingham broad, a Swan having built her nest, on a small island near its mouth, and being at that time sitting on her eggs, her companion for a length of time disputed the passage, boldly attacking the boat, and striking its wings with great violence against the oars, and, at the persons rowing the same. At length a fine Spaniel sprang from the boat into the water, and the Swan immediately attacked the dog, and would have succeeded in drowning him had it not been for the exertions of the persons on board.

We are acquainted with another instance of attachment in this Bird which occurred about two years since. A Swan having built her nest on a part of Bungay Common, the season being very wet, and unpropitious to incubation, the eggs became addled, nevertheless the female continued sitting upon them, until she dropped dead from her nest, and floated down the river.

The young, or Cygnets as they are called, are at first very ugly, and covered only with a grey or yellowish down, like goslings. Their feathers do not appear till a

few weeks after, and are of the same greyish colour, and it is not till eighteen months, or two years have elapsed that these birds are invested with their full plumage. They continue to follow their mother till the month of November, when they are chased away by the adult males, who wish to enjoy exclusively the company of the females. These young birds exiled from their family, unite in one body, and do not separate till they pair.

The habits of the Swan are extremely peaceful, except in the defence of the female, or her young, or when a rival intrudes on the possession of his Mistress. "He then forgets (says Buffon) his mildness, becomes ferocious, and fights with obstinate rancour; and a whole day is often insufficient to terminate the quarrel. They begin with striking violently their wings, then close, and persist till commonly one of them is killed; for they strive to stifle each other by locking the neck, and forcibly holding the head under water."

Although the epithet *Tame* has been given to this species, it cannot be said to be

domesticated; they are, only as it were, partly reclaimed from a state of nature, and invited by the protecting hand of man to decorate and embellish the artificial lakes which beautify his pleasure grounds. On these, the Swan cannot be accounted a captive, for he enjoys all the sweets of liberty. Placed there, as he is the largest of all the British Water-Birds, so is he to the eye the most pleasing and elegant. What in Nature can be more beautiful than the grassy margined lake, hung round with the varied foliage of the grove, when contrasted with the pure resplendent whiteness of the majestic Swan, wafted along, with erected plumes, by the gentle breeze, or floating, reflected on the glassy surface of the water? On no other species has Nature diffused so much of those noble and gentle graces, which recal the image of her most charming productions. In the exhibition of its form, we see no broken or harsh lines, no constrained or abrupt motions, but the roundest contour and the easiest transitions imaginable: the eye wanders over every part with pleasure,

and every part takes new grace with new postures. Indeed all the actions of the Swan, are calculated to excite that enchantment which possesses the soul at the sight of grace and beauty ; all declare it, paint it, the bird of love ; all justify the ingenious and sprightly mythology, that this delightful bird was the father of the most beautiful of women.

But although so elegant in its native element, on the land the Swan appears awkward and inactive.

It swims very fast, and the power it has of turning its feet over its back when floating has a very singular appearance.

From what is asserted in the early part of this article ; it cannot be doubted that this species possesses considerable powers when striking with its wings, but we cannot help agreeing with Montagu that the ridiculous tale of its being able to break the arm, leg, or thigh of a man are only calculated to frighten children, and that it is high time such nursery stories should be erased from the pages of Natural History ; for, in our opinion it would be as

easy to break a man's head with a reed, as that his arm should be broken by the wing of a Swan.

The Swan is said to be very long lived, instances are recorded of its sometimes reaching the age of one hundred years. The flesh of the mature bird is hard and ill tasted, but that of the Cygnet is much sought after,* and constitutes a splendid dish at the tables of the great. They are fattened with great care, and during a long period, being fed chiefly upon oats or barley, of which they are said to consume an almost incredible quantity before they are fit to be killed.

Swans were formerly held in such esteem in England, that by an act of Edward the 4th. no one that possessed a freehold of less clear yearly value than five marks, was permitted to keep any, except the son of our Sovereign Lord the King. And by the eleventh of Henry the 7th, the punishment for taking their eggs, was en-

* In this City (Norwich) many of these birds are fattened annually by order of the Corporation, and sent as presents to different parts of the kingdom.

acted to be imprisonment for a year and a day, and a fine at the King's will.

On the River Thames, Swans are esteemed royal property ; and it continues at this day to be accounted felony to steal their eggs. By this means their increase is secured, and they prove a delightful ornament to this and other rivers in the kingdom.

In some parts of Russia and Siberia, this species are said to be found in a state of nature.

It is scarcely necessary to add that the *down* of the Swan is converted into many useful and ornamental articles.

ANAS CYGNOIDES.**GUINEA GOOSE.**

Bill semi-cylindric; cere gibbous; eyelids tumid.

Anas Cygnoides, Lin. Gme.

L'Oie de Guinee, Buffon.

Chinese Goose, Pen. Lath.

Swan Goose Bewick.

Guinea Goose, Wood, &c.

PROVINCIAL.**SPANISH GOOSE, CAPE GOOSE.**

This species measures more than three feet in length, and is in size between the Swan and the Common Goose.

The female is smaller than the other sex. The eggs are white and small in proportion to the size of the bird. It is said that these birds originally were found in Guinea only: yet notwithstanding they were imported into Europe from so hot a country,

they are now become pretty commonly domesticated, not only in this kingdom, but also in the coldest climates. They have been known to breed with the Common Goose, and their offspring are said to be as prolific as those of any other kind.

The clangour of the Guinea Goose is still more noisy than that of the ordinary kind, and they have many characters in common with that species.

Gmelin enumerates three varieties of this species; one of which has a large pouch or wattle, almost bare of feathers, hanging under the throat. This pouch or dewlap, Kolben says, is made use of by the soldiers and common people of the colonies, for tobacco pouches.

ANAS TADORNA.

SHIELDRAKE.

Bill knobbed at the base, front compressed ; head green-black ; body variegated with white.

Anas Tadorna, Linn. Gme.

Le Tadorne, Buffon.

Shieldrake, Lath. Mont. Pen. Bew.

PROVINCIAL.

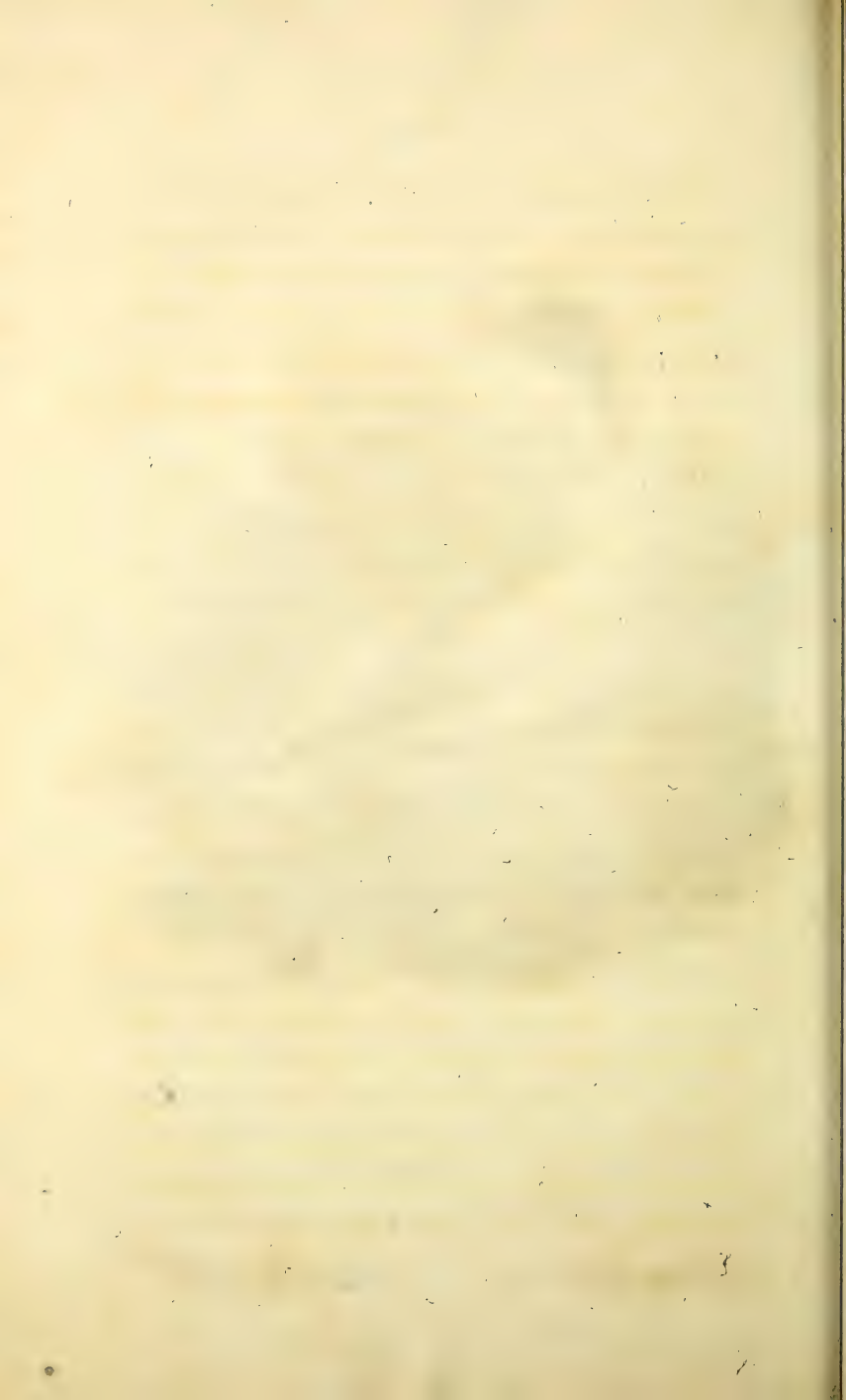
**BARGANDER, ST. GEORGE'S DUCK,
BURROW DUCK, PIRENET, SLY-
GOOSE, SHELDRAKE, SKEL-
DRAKE, SKEEL GOOSE, OR
SKEEL DUCK, SKEELING GOOSE.**

This elegant bird (the Fox-Goose of the ancients) is one of the very few species of Ducks indigenous to these kingdoms. It measures about two feet in length, and three feet six inches in the expansion of its wings.



Anas tadorna.

Sheldrake.



The female resembles the other sex in the disposition of the colours of her plumage, but, she wants that beautiful bronze so predominant on all the darker tints of the male ; she has also a small whitish spot instead of the protuberance on the forehead and is somewhat less in size.

She generally prefers a rabbit burrow in the neighbourhood of the sea for her place of nidification ; and seems very particular in making her selection. In this burrow she deposits from twelve to sixteen white eggs (about the size of those belonging to the Common Duck, but much more rounded) upon the naked sand, and afterwards wraps them in down plucked from her own breast. During the time of incubation, which is about thirty days, the male is very assiduous in his attention to his mate, keeping a strict watch from some neighbouring eminence, and only leaving the vicinity of the nest once, or twice a day, in order to procure subsistence on the sea. The female also quits her eggs for the same purpose for a short time morning and evening, when the male enters the burrow,

but on the arrival of the female, he, returns again to the eminence. Instances are recorded (when the female has been destroyed) of the male bird having taken upon himself the important business of incubation, and succeeded in rearing the young.

The young birds have at first their backs white and black, or brownish colour, and their bellies very white; but they soon put off this livery, and become grey. Their legs and beaks are of a pink or flesh colour. About the month of September they begin to assume their beautiful feathers; but it is not before the second year that their colours gain their full lustre: and their puberty is strongly characterized, by a very considerable enlargement of the knob at the base of the beak, which at that season becomes of a fine coral red.

These birds seem to pair, and to continue so throughout the year. We have before stated that they prefer the vicinity of the sea, into which element the young are conducted as soon as hatched, or, as soon as they are able to waddle along; and well authenticated anecdotes are recorded

of their sometimes being carried thither in the beaks of their parents.

If a person happens to interrupt the family in their progress to the sea, the young squat close down, and the parent birds fly off: the female however affects to reel, and fall at no great distance from her helpless brood; she trails on her belly, and strikes the earth with her wings, and appears as if she were wounded, in order to attract attention, and tempt a pursuit after her. Should these wily schemes, in which she is aided by her mate, succeed, they both return when the danger is over, to their terrified offspring.

The eggs of the Shieldrake are frequently taken, and hatched under a tame Duck, and the young readily brought up.* Yet, notwithstanding the greatest attention having been paid to the rearing of this elegant species, in order to its domestication, we can find only one or two in-

* Latham says that they are "apt after a few years, to attempt the mastery over the rest of the poultry; and we have seen some that were even vicious, attacking every thing that came in their way."

stances recorded, of its continuing to propagate its species in a state of confinement. This defect (Montagu says) appears to be in the female, “ she is constantly coy, although so strongly urged by the other sex, who it seems has every inclination.” In Lord Stanley’s menagerie the male of this species has been known to breed with the Common Duck.

In a state of nature the food of these birds consists of marine insects, the fry of fish, and small shell-fish, but, in confinement they will feed upon grain as readily as the domestic Duck, and will equally partake of aquatic plants.

The Shieldrake breeds in the sand hills which separate Norfolk from the sea. They were formerly numerous at Winterton, but being supposed to disturb the rabbits considerable pains were taken to destroy as many as possible. Their haunts may be discovered by the tracks of their feet at the mouths of the burrows frequented by them, And they are sometimes taken by a snare placed at the entrance of the burrow.

The Rev. Mr. Adams favoured us last Spring with a fine specimen, taken in the manner just described.

It at first appeared very shy, and endeavoured to hide itself in any dark corner; when a person approached it, it made a strange hissing, not very unlike the snoring of the White Owl. This bird was turned upon a lawn near a small pond, wherein was kept some tame Ducks, and although so recently taken, began to eat, and continues in good health.

This species is dispersed in greater or less numbers, over the warm, as well as the cold climates, in various parts of the Globe. They are found as far north as Iceland in the spring, and in Sweden and the Orkneys in the winter. They are also found on the borders of the Caspian Sea, on the Salt Lakes of the Tartarian and Siberian Deserts. Capt. Cook noticed them, among other sea-fowl on the coast of Van Diemen's Land, and they have been seen in great numbers, at the Falkland Islands. From their having been seldom observed at a remote distance from the Coast, it has been

doubted by some, whether they could exist without the marine element. That they can do so and continue to enjoy perfect health, (provided they are allowed communication with a pond) we are fully convinced, having seen several proofs of the fact.

The flesh of the Shieldrake is rank and unsavoury, but their eggs are allowed to be excellent.

The *trachea* of the male is furnished with a singular *labyrinth*, consisting of two roundish bladders of a most delicate texture, one of which is larger than the other, both are uneven on the surface. (see plate).





Anas fuscata.

Velvet Duck.

ANAS FUSCA.**VELVET DUCK.**

Blackish; lower eye-lid and spot on the wings white.

Anas Fusca, Linn. Gme.

La Double Macreuse Buffon.

Velvet Duck, Pen. Lath. Mont. Bew.

PROVINCIAL.**DOUBLE SCOTER, OR GREAT BLACK DUCK.**

The portrait accompanying this article, was taken from a beautiful specimen in the possession of T. B. Beevor, Esq. it agrees in every particular with the description given by Bewick, but Temminck says that the old male birds have the irides, legs, and toes red, and the webs black.

The Velvet Duck measures from twenty, to twenty two inches in length, and is in size rather larger than a Mallard.

All the upper part of the plumage in the female is of a dark brown colour; the under parts of a whitish grey streaked and spotted with dark brown. Between the eyes and the beak, and upon the ears a white spot. The beak is of a dark ash colour; the irides brown, the legs and toes of a dirty red.

This species may be considered rare in this country, it is sometimes seen in company with the Scoters, and has been taken in the fishermen's nets. They are more plentiful on the Continent, inhabiting Denmark and Russia: in some parts of Siberia they are very common, and they are known to breed at Hudson's Bay. In the winter season they retire to the southward, in greater or less numbers, according to the severity of the weather, approaching the temperate climes of both hemispheres. In the breeding season they are said to go far inland to lay their eggs, which are eight or ten in number, wholly white. The males forsake the other sex after the breeding season is over, leaving their progeny entirely to the care of the females, who

continue till the young are able to fly, when they leave together.

The *young males* very much resemble during the first year the *old females*, but may be distinguished from them by having their legs and toes of a brighter red, and by smaller white spots on each side of the eyes.

The natives at Ochotska before the young are able to fly, go out in large parties, and endeavour to surround a whole flock, driving them at the flood, up the river; and as soon as the tide ebbs, the whole company attack the birds with clubs, &c. and are often so fortunate that twenty or thirty falls to the share of each individual.

We have given a plate of the singular *trachea* belonging to the male of this species, see plate IV. fig. 4 and 5, fig. 5 is a continuation of fig. 4, the plate not being of sufficient length to admit the whole of the size of nature.

ANAS NIGRA.**SCOTER.**

Body totally black ; bill gibbous at the base.

Anas nigra, Lin. Gme.

La Macreuse, Buffon.

White Throated Duck, Pennant.

Scoter, Pen. Lath. Bew. Mont.

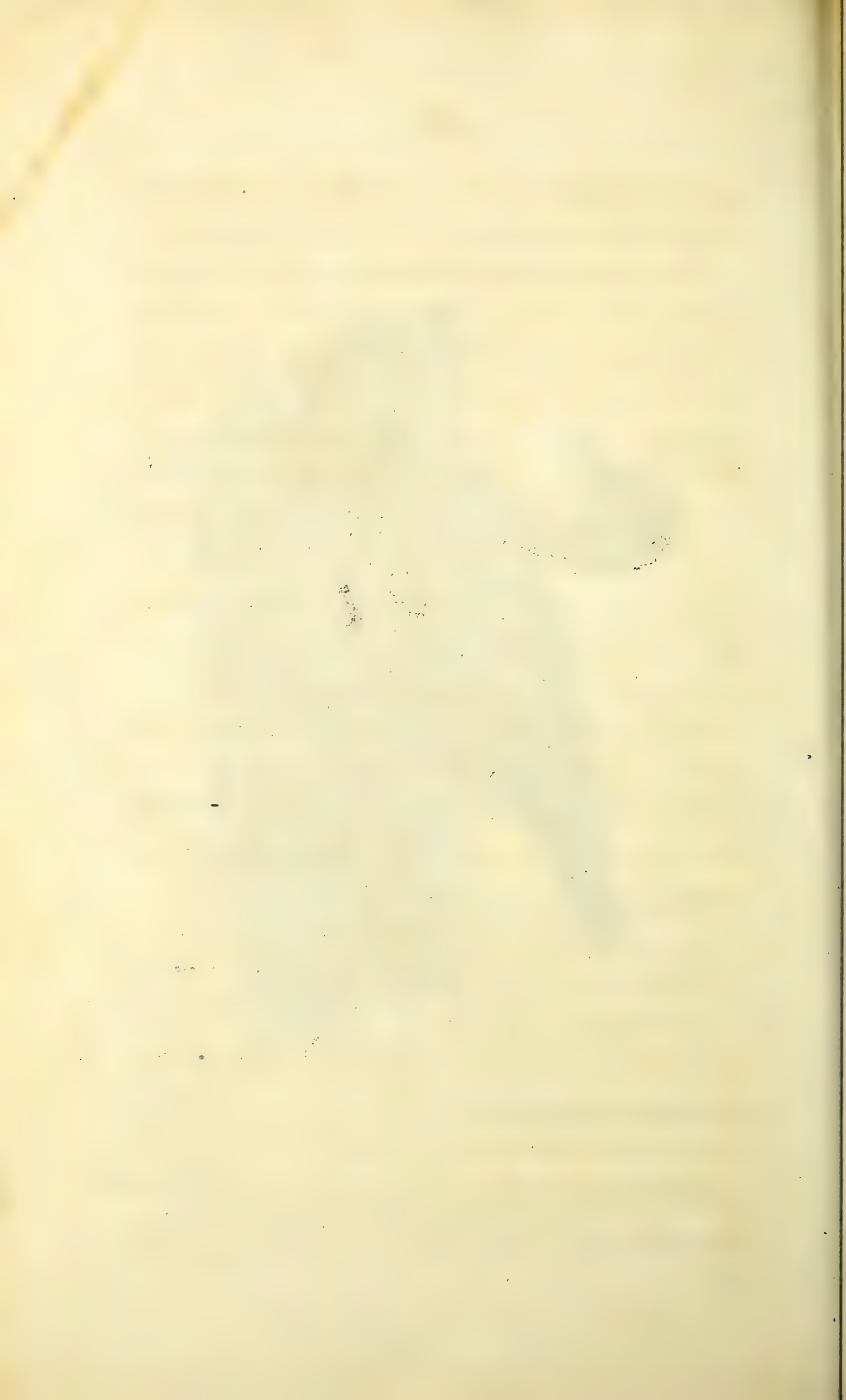
PROVINCIAL.**BLACK DUCK, BLACK DIVER,
WHILK.**

This bird measures much the same as the Velvet Duck, but it is by no means so plump. The nail at the end of the beak is very depressed and rounded, the legs and toes are of a brown ash colour, webs black, the tail very cuneiform, eye-lids yellow.

The female has the top and back of the head, and back of the neck of a brown



Anas nigra — Swam



approaching to black; cheeks and throat of an ash-colour spotted with brown; the back, wings and belly of a deep brown, each feather being bordered with whitish brown, the breast of an ash-coloured brown with the feathers bordered in the same manner. The base of the beak raised, but not surmounted with a globular protuberance as in the male; nostrils and a spot towards the point of the bill yellowish, the rest blackish; eyelids brown. The above is a description of the mature bird, but some specimens have been found with part of the neck and head as far as the eyes, quite white. This was the case with the specimen figured by Pennant and given in his work under the title of *White Throated Duck*.

The young males scarcely differ from the old females.

The Scoters prefer for their habitation the more northern climes, being found in Siberia and the northern coasts of America. In severe winters they descend to the more temperate latitudes in immense flocks, dispersing themselves along the coasts of

Scotland, England, Holland,* France, &c. On the northern coast of the latter Kingdom prodigious numbers are attracted by *beds* of a certain kind of bivalve shell-fish, which abound in those parts, and of which they are particularly fond, for they are almost incessantly diving for them, frequently to the depth of some fathoms.

The fishermen at low water spread long nets over these *beds* supported horizontally two or three feet from the sand, these are covered by the overflowing tide, which also brings the Scoters within their accustomed distance from the beach. As soon as one bird dives the whole flock follow the example, and emerges a few moments after, appearing and disappearing on the water every minute, numbers are entangled in the meshes of the nets. By this method from twenty to thirty dozen have been taken in a single tide. In a religious point of view these birds are not esteemed *flesh*, but *fish*,

* Temminck observes that "the Scoter, the Velvet Duck and a few other species cover in autumn all the margin of the sea on the coast of Holland, and is equally numerous on the waters of the interior.

and in a Roman Catholic country must be in great request to vary the repast on a fast day. The fishy flavour which in that country constitutes their value, in this, occasions their being rejected from the tables of the poor, as well as the rich; otherwise they might be caught in the same way, and perhaps in as great an abundance on some parts of the British Coast.

The whole day seems to be spent by these birds, between diving, and flying to small distances: they fly so near the surface of the water as frequently to dip their legs therein.

Nature has supplied the Scoter with a large muscular and strong gizzard, for the purpose of triturating their food.*

It was formerly believed that these birds as well as the Bernacles were engendered in shells and in rotten wood.—We have before observed that, there is nothing remarkable in the formation of the *trachea* of this species.

* In a state of confinement this species have been fed upon soaked bread which appeared to agree with it tolerably well.

ANAS ALBIFRONS.

WHITE-FRONTED GOOSE.

Brown, beneath white spotted with black; front and rump white; bill and legs flame colour.

Anas Albifrons, Gmelin.

L' Oie Rieuse, Buffon.

Laughing Goose Edwards.

White-Fronted Goose Penn. Lath.
Mont.

White fronted Wild Goose Bewick.

PROVINCIAL.

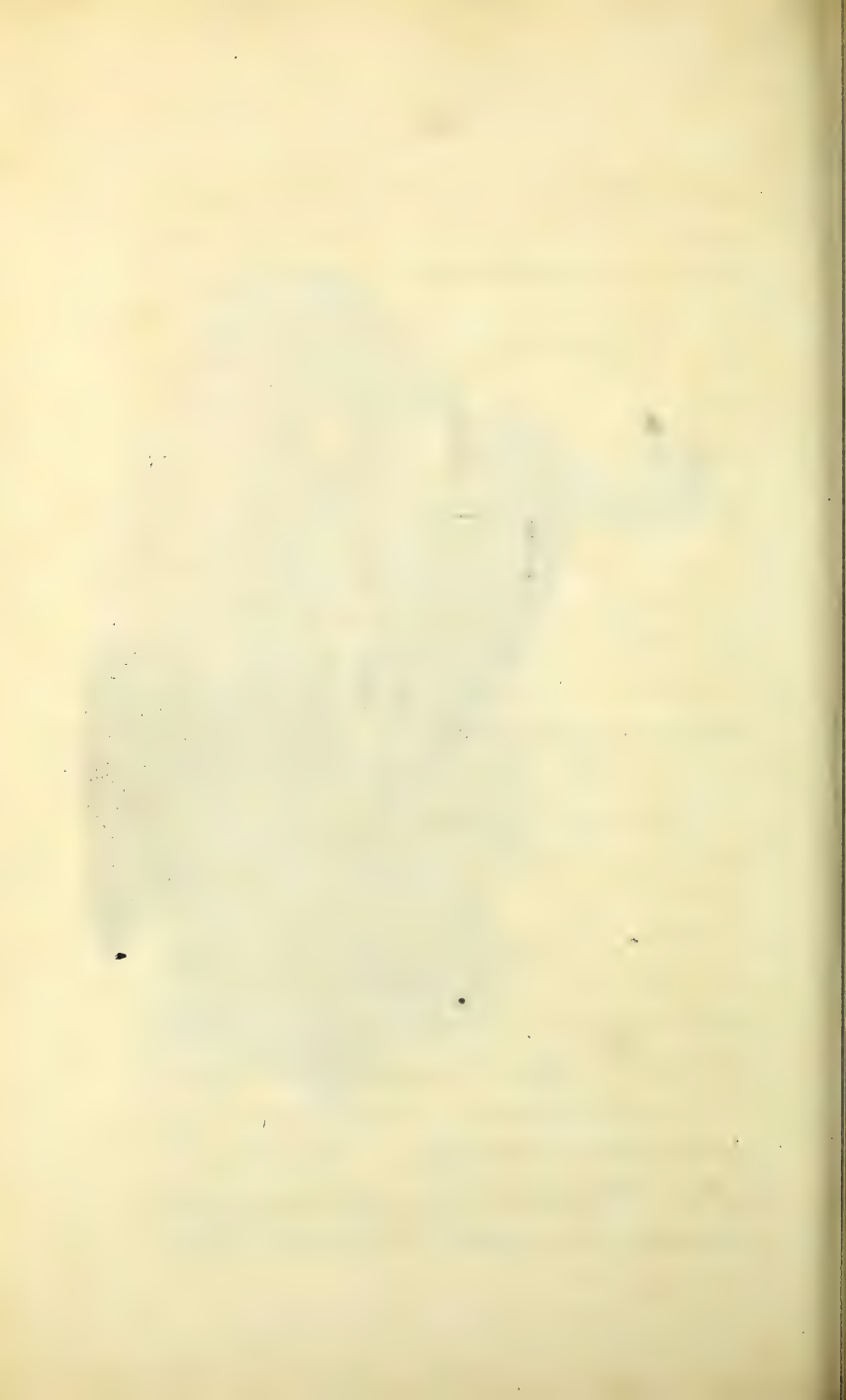
BALD GOOSE.

This species measures in length about two feet five inches, and weighs from four pounds four ounces to seven pounds.

The female is destitute of the black markings on the under parts of the body, and the white front is only a very narrow



Anas albifrons — White-fronted Goose



band at the base of the upper mandible, from this circumstance it has occasionally been confounded with the Bean Goose.

These birds form a part of those vast tribes which swarm about Hudson's Bay, and the north of Europe and Asia, during the summer months.

They visit the fenny parts of this Country in small flocks, in severe winters, and are not uncommonly brought to market and sold for the common Wild Goose.

They retire northward to breed about the month of March. It is said that they never feed on the corn fields, but confine themselves wholly to such wilds and swamps as are constantly covered with water.

DIVISION 2.

BEAK EQUAL AT THE BASE.

ANAS MARILA.

SCAUP DUCK.

Black ; shoulders waved cinereous ; belly and spot on the wings white.

Anas Marila, Lin. Gme.

Anas frænata, (female) Sparman.

Le Millouinan, Buffon.

Scaup Duck, Pen. Lath. Mont. Bew.

White Faced Duck (female) British
Miscellany.

These birds are supposed to have derived their name for feeding on *Scaup* or broken shell-fish.

Most naturalists have stated that the female of the Scaup Duck was similar in plumage to the other sex ; but the truth is that the dissimilarity is so great between the sexes, as to have occasioned the female



Anas Marila. — *Teal Duck.*



to be considered as a distinct species; which has been described under the name of the *White Faced Duck*. Montagu in his Ornithological Dictionary fell into the same error, but in his Supplementary volume he has corrected the mistake.

This species measures twenty inches in length, and thirty two in the expansion of its wings.

The female measures from eighteen to nineteen inches in length.

This species like most of the genus, breeds in the more northern parts, are common in Russia, Sweden, Norway, and Lapland; and are also found in Hudson's Bay in the warmer months. "In autumn (says Temminck) these birds cover with innumerable swarms all the inland seas of Holland." They are not uncommon upon the British Coasts in winter, but are rarely observed upon fresh water.

The beak is broad and not so much compressed as is usual in birds belonging to this genus. The head from being well clothed with feathers appears much larger than it really is. The number of the fea-

thers in the tail amounts to fourteen. Both sexes make a kind of grunting noise, and a singular toss of the head, attended with an opening of the beak, which in the spring is continued for a considerable time while swimming, and sporting on the water.

According to Montagu's account, they are never taken in decoys, but that they are frequently entangled in fishermen's nets. The same author observes when speaking of this species in a state of confinement, that, "during the summer months, when the larvæ of various insects are to be found in the mud at the bottom of the pond, these birds are continually diving; but they are perfectly contented with barley, and are become so tame as to come to the edge of the water for a bit of bread. Of all the birds we have had, that have been taken alive from their natural wild habits, none have yet appeared so familiar as the Scaup."

Having given figures of both sexes in their mature plumage, it is only necessary to observe, that the *young males* resemble more or less the *old females*; having the

base of the beak surrounded by some white feathers; the black of the head and neck without the green gloss, and mixed with some very dark brown feathers; the white of the back varied with brown spots, and its undulating lines nearer to each other than in the *old males*; the belly of a dull white spotted with grey, and the sides marked with dark brown spots.

In the young females the undulating lines upon the back can scarcely be distinguished, being lost in the brown colour which forms the ground of them.

ANAS ANSER.**GREY-LAG GOOSE.**

Bill semicylindric; body above cinereous, beneath paler; neck striate.

Anas Anser, Lin. Gme.

Oie sauvage Buffon.

Wild Goose, Will.

Grey-lag Goose, Lath. Pen. Bew. Mont.

PROVINCIAL.**FEN GOOSE,**

This species (the origin of our Tame Goose) is indigenous to this Kingdom. Formerly numbers of them bred and continued the whole year in the fens of Lincolnshire, and other swamps, contiguous to the eastern coasts. But the labour of Man, by draining and cultivating these fens and morasses, has greatly diminished their numbers, so much so, that we are uncertain

whether they remain in their old accustomed haunts, but there can be no doubt that the greater part migrate northward to breed.

The female lays eight or nine eggs of a dirty white.

During the winter season these birds unite into flocks, and are frequently changing their places. In their flight they assume various shapes, sometimes that of an inverted V, an A. an L, and sometimes a straight line, these changes are attributed by some authors, to the leader of the van's quitting his post at the point of the angle through fatigue, dropping into the rear, and leaving his place to be occupied by another. The flight of these birds have been calculated at the rate of twenty five miles an hour, When they happen to halt in their migratory excursions, they are very destructive to the young corn. Bewick says that " in some countries they are caught in those seasons in long nets, resembling those used for catching Larks : to these nets the Wild Geese are decoyed by tame ones placed there for that purpose. Many other schemes are contrived to take

these wary birds; but as they feed only in the day time, and betake themselves to the water at night, the fowler must exert his utmost care and ingenuity in order to accomplish his ends: all must be planned in the dark, and every trace of suspicion removed; for nothing can exceed the vigilant circumspection and acute ear of the sentinel, who, placed on some eminence, with out stretched neck surveys every thing that moves within the circle of the centre on which he takes his stand; and the instant he sounds the alarm, the whole flock betake themselves to flight."

The Grey-lag or common Wild Goose seems to be widely and numerously spread over all the various parts of the northern world, from whence flocks of them migrate a long way southward during the winter. They are at different seasons to be met with from Lapland to the Cape of Good Hope, and on the American continent from Hudson's Bay to South Carolina: different voyagers have seen them in the Magellanic Straits, at Port Egmont, Terra del Fuego, New Holland, &c. They ap-

pear at Hudson's Bay, early in May, and as soon as the Ice disappears; collect in flocks of twenty or thirty, remain there about three weeks, then separate in pairs, and go northward to breed; about the middle of August they return to the marshes with their young and continue there till September.

We have before observed that the improvements in agriculture have in a great measure compelled these birds to leave their native haunts in this country. The swamps which in more barbarous times yielded only a scanty subsistence to the neighbouring inhabitants, by the promiscuous capture of such birds, are now teeming with them in a domesticated and highly improved state.

Those who have never witnessed the numbers fed in some of the fens in Lincolnshire, can form no idea of this golden treasure, nor of the beauty of the almost innumerable flocks that enliven those tracts.

By a careful attention in the breeding, two sorts of Geese have been obtained: the larger are by some preferred on account of the bountiful appearance they make

upon the festive board, but the less are certainly the more delicate eating. It is not however altogether on account of their use as food that they are valuable, their smaller feathers and down contribute so largely to our nightly repose; their quills, so common in use for transmitting our thoughts to the present and future ages, have long been considered as articles of more importance, and from which their owners reap more advantages. In this respect the poor creatures have not been spared: urged by avarice, their inhuman masters appear to have ascertained the exact quantity of plumage of which they can be robbed, without being deprived of life. Mr. Pennant in describing the method used in Lincolnshire, in breeding, rearing and plucking Geese, says that "during the breeding season, these birds are lodged in the same houses with the inhabitants, and even in their very bedchambers: in every apartment are three rows of coarse wicker pens placed one above another; each bird has its separate lodge divided from the other, which it keeps possession

of during the time of sitting. A person called a *Gozzard*, (goose herd) attends the flock, and twice a day drives the whole to water; then brings them back to their habitations, helping those that live in the upper stories to their nests, without ever misplacing a single bird. The Geese are plucked five times a year; the first plucking is at Lady day, for the feathers and quills; and the same is renewed, for feathers only, four times between that and Michaelmas. The old Geese submit quietly to the operation, but the young ones are very noisy and unruly. I once saw this performed, and observed that the Goslings of six weeks old were not spared; for their tails were plucked, as I was told, to habituate them early to what they were to come to."

In most parts of the Kingdom, the Goose is an appendage to the farm yard, and being a hardy bird and subject to few distempers, she requires but little care. She lays from seven to twelve eggs, and sometimes more. Several cottagers in this County, pay attention to the rearing of

early Geese. Last spring a brood were hatched in a Cottage, on the first of February; and sold at a month old for five shillings each. Some Geese acquire the character of good breeders by constantly rearing two broods in a season, and an instance has been known of a Goose beginning to lay a second time, before she had quitted the care of her first brood, but in general they are not permitted to have a second hatching: the eggs being made use of for household purposes.

M. Cuvier has published a brief description of a bird, produced by the fecundation of a Goose by a Swan. "She laid nine eggs, and began to hatch them, but only one living bird was obtained. On quitting the shell the young one differed very little from a Gosling, it was covered with a yellowish down, with a dark olive tint on the back, neck, and head. The upper mandible of the bill was black, except the point, where it was white, and the lower was orange coloured. The feet were of the latter colour, and disproportionably large: the circle of the iris was

brown, and the eyelids yellow. The only change which it has since undergone is in the size, which considerably exceeds that of the mother, though it bears a much greater resemblance to her than to the Swan."

The male or Gander shares with the female only the pleasures of love; on her devolves the whole care of incubation. She covers her eggs constantly and assiduously, and would even neglect to eat and drink, were not food placed near her nest. As soon as the young are capable of following their mother, they are conducted to the green sward near the water, and those who have been in the habit of rearing these birds must have noticed the singular expressions of joy which the Gander feels for his young the first time he sees them eat. He shews his satisfaction with raising his head with a dignified air, and stamping with his feet, so that one should imagine that he was dancing. These signs of contentment are not equivocal, since they have place only in this circumstance, and are repeated almost every time that the Goslings are fed in their tender age.

The Goose has been for ages celebrated on account of its vigilance. The story of their saving Rome by the alarm they gave, when the Gauls were attempting the capitol is well known; and on that account, they were afterwards held in the highest veneration by the Roman People. It is certain that nothing can stir in the night, nor the least noise be made, but the Geese are roused, and immediately begin to cackle: this cackle has been compared to the clangour of a trumpet, or clarion.

This bird has also other short notes, when assailed or frightened, it stretches out its neck and gabbles with open mouth, and hisses like an adder.

In few countries except our own, does the value of the Goose appear to be fully appreciated, for, with proper management, few animals are of greater worth, Montagu observes that "we may truly estimate their intrinsic value, as little inferior to the Sheep; for the *wool* of the Goose is equally valuable, and the flesh as eagerly sought after. Upon the whole therefore a Goose is a highly profitable animal, little inferior

to that of the sheep, in certain situations; and thousands are annually bred where that animal could not exist."

Were it possible to calculate the numbers reared in this country, it would appear incredible. The numbers brought annually to almost every market town, when, added to the immense droves sent to the centre of trade, would make the whole appear multiplied in a ratio almost incalculable.

In an article which Dr. Latham has copied from the St. James's Chronicle of Sept. 2nd 1783, it is noticed that a drove of about nine thousand Geese passed through Chelmsford in their way to London, from Suffolk. A modern Author of much celebrity observes that "to a stranger it is a most curious spectacle to view these hissing, cackling, gabbling, but peaceful armies, with grave deportment, waddling along (like other armies) to certain destruction.

The drivers are each provided with a long stick, at one end of which a red rag is tied as a lash, and a hook is fixed at the other: with the former of which the Geese seem much afraid, they are excited forward;

and with the latter, such as attempt to stray, are caught by the neck and kept in order ; or if lame they are put into an *hospital cart*, which usually follows each large drove. In this manner they perform their journies from distant parts, and are said to get forward at the rate of eight or ten miles a day, from three in the morning till nine at night."

It is said (but the tale savours too much of the marvellous) that among the villages of the Cossacks, subject to Russia, on the river Don, the Geese leave their homes, in March or April, as soon as the ice breaks up, and the pairs joining each other, take flight in a body to the remote northern lakes, where they breed and constantly reside during the summer ; and that on the beginning of winter, the parent birds, with their multiplied young progeny, all return, and divide themselves, every flock alighting at the door of the respective place to which it belongs.

Many instances of attachment, and even gratitude, have been recorded of this species.



Anas Rufficollis. — Red-breasted Goose.

ANAS RUFICOLLIS.**RED-BREASTED GOOSE.**

Black, beneath white ; bill small, conic ; neck rufous ; spot between the bill and eyes white.

Anis ruficollis, Linn. Gme.

L'oie a cou roux, Sonnini

Red Breasted Goose, Pen. Lath. Mont.

Red Breasted ; or, Siberian Goose, Bew.

This species measures twenty one inches in length, and its extended wings three feet ten inches.

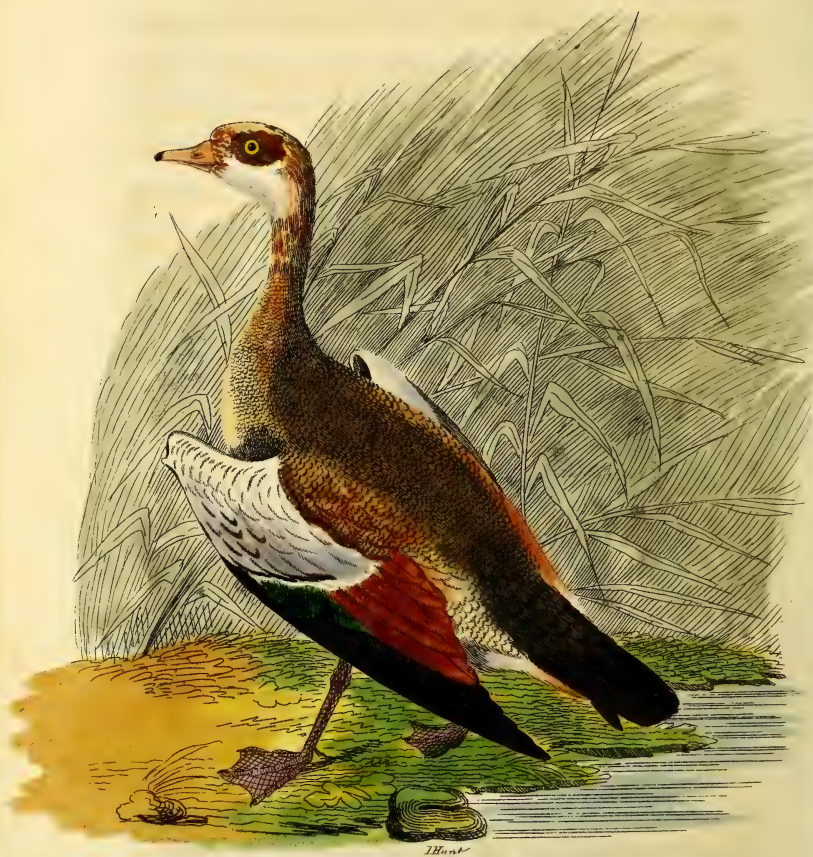
Turton in his translation of Gmelin, says that the Red-breasted Goose inhabits Russia and Northern Siberia, and migrates in winter towards Persia.

Very few instances are recorded of its having been taken in this Country. Dr. Latham mentions one that was shot in the neighbourhood of London, in the beginning of the hard frost in 1766 ; and ano-

ther taken alive about the same time near Wycliffe and kept there for several years in a pond among some Ducks, where it became quite tame and familiar. Mr. Wigg of Yarmouth informs us that he purchased a specimen in the Market-place of that borough a few years since; there is also a specimen in the London Museum* recently killed, and we are assured that the specimen formerly in the Leverian Museum, was purchased at the late sale of Mr. Donovan's Birds, by Mr. Foljambe for fifteen guineas and a half.

They are said to be quite free from any fishy taste.

* Since the above went to press, that splendend collection has been brought to the hammer, and totally dispersed: the specimen of the Red-breasted Goose has been purchased by Dr. Leach, for the British Museum at 27l,



Anas Egyptiana — Egyptian Goose

ANAS ÆGYPTIACA.

EGYPTIAN GOOSE.

Bill subcylindric, body undulate; crown white, wing spot clear white with a black bar.

Anas Ægyptiaca, Gmelin

L' Oie d' Egypte, Buffon

The Ganser, Alb.

Egyptian Goose, Latham

Egyptian, Ganser, or Gamboo Goose,
Bew.

This elegant bird is nearly the size of the Grey-lag Goose. Each wing is furnished on the bend with a short blunt spur.

The colours of the female are much the same as those of the male, but not so distinctly marked.

Our drawing was made from a beautiful specimen shot a few years since at Kimberley, the seat of Lord Wodehouse. The Keeper when he brought it to us to be

preserved, informed us that the bird was amazingly shy,* and that he repeatedly for two or three successive days endeavoured to get a shot at it without effect; at length he succeeded by driving a horse up to the canal and shooting at the bird from under the horse's belly. A specimen now in our possession, for which we are indebted to the kindness of the Rev. G. Lucas, was shot by G. Montagu, Esq. (we believe nephew to the celebrated Ornithologist of that name) at Great Ormsby, near Yarmouth, in the month of Sept. 1815, after a very heavy gale of wind from the east. Another specimen is now in the possession of the Rev. B. Philpot of Sibton Park, near Yoxford; this specimen was killed in Suffolk.

Buffon observes that the "Egyptian Goose journeys or strays in its excursions sometimes to a vast distance from its native country: that represented in our *Pl. Enl.* was killed on a pool near Senlis; and from

* Temminck does not give the Egyptian Goose as a European species; he seems to be of opinion that if any have been killed at large, they must have escaped from a state of domestication,

the appellation given by Ray to this Goose, it must also be sometimes found in Spain."

Bruce says that it is the only species of Goose observed in Abyssinia; that it makes its nest in trees, where it almost always perches when it is not on the water.

It is said to be common at the Cape of Good Hope, and Bewick informs us that it is now domesticated in England and other civilized countries.

The Egyptian Goose is probably the *Nile Goose* of Granger and other travellers.

ANAS SEGETUM.

BEAN GOOSE.

Cinerious, beneath dirty white; bill compressed at the base; tail coverts white; legs saffron.

Anas Segetum, Gmelin

L'oie Sauvage, Buffon

Anser Sylvestris, Brisson

Bean Goose, Pen. Lath. Bew Mont.

PROVINCIAL.

SMALL GREY GOOSE.

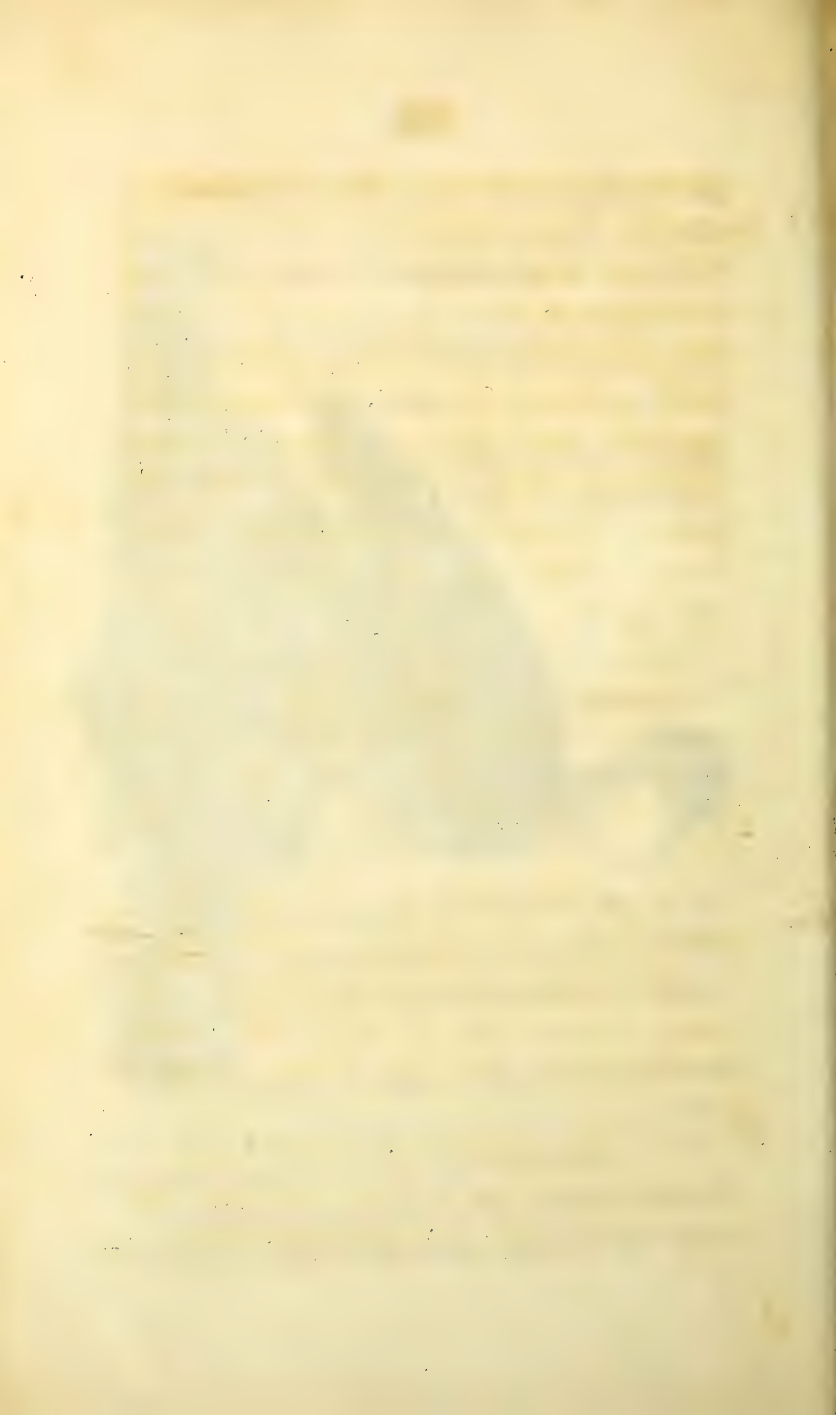
This Goose seems to have derived its name from the formation of the tip of the beak, which very much resemble a Horse Bean.

The length of this species varies from two feet seven inches to three feet, the alar extent about four feet eleven inches.

We have stated under the article *White Fronted Goose* that the female of that



Anser Segetum. — Bean Goose.



species has sometimes been confounded with the *Bean Goose*.

It has been generally considered that the colour of the nail, or tip of the beak, is the criterion of distinction between the two above mentioned species ; it having been supposed that, that part is always *white* in the *White Fronted Goose* and that in the present species the same part is always *black* ; this is not strictly correct, as specimens of the White Fronted Goose may be found in collections, the tips of whose beaks are black ; nevertheless the difference in the form of the beak of the two species, independent of the colours, are so striking, that a careful examiner cannot easily be mistaken.

This species, like the *Bernacle* has a callous knob upon the elbow of the wing.

The female is like the other sex in plumage, rather less in size, but considerably larger than the *White Fronted Goose*.

They are reported to breed in great numbers in the Isle of Lewis and others of the Hebrides, and also at Hudson's Bay.

These birds arrive in the fen countries (sometimes in large flocks) in the autumn, and take their departure in the month of May. They appear to be very fond of green wheat, but in a domesticated state thrives upon barley or other grain. They are more frequent than the Grey-lag Goose and are in general sold by the Poulterers for that species.



Anas platyrhynchos — Mute Swan

ANAS ERYTHROPUS.**BERNACLE GOOSE.**

Cinereous ; front white.

Anas Erythropus, Lin.

Anas Erythropterus, Turton's ed. of Gme.

Anas leucopsis, Temminck

La Bernache, Buffon

Bernacle, Pen. Lath. Bew.

Bernacle Goose, Mont.

Canada Goose, Albin.

PROVINCIAL.**CLAKIS, OR TREE GOOSE, CLAIK
GOOSE, ROUTHEROCK.**

The specific term *erythropus* appears to have been improperly applied to this species, as it certainly has not red feet ; Temminck has noticed this circumstance, and proposes to characterize it by substituting the word *leucopsis*.

The Bernacle weighs about five pounds,

and measures more than two feet in length, and nearly four and a half in breadth.

This species inhabits North America, and Europe; it appears sometimes in flocks at the Orkneys, in the spring, and at the Feroe Isles both in the spring and autumn, in their migrations to, and from their places of breeding, which appears to be further towards the north. In the winter season they frequent the north west coasts of this country in large flocks, but are rarely met with in the southern parts, except in very severe weather. They retire as early as the month of February. They are found in Russia, Lapland, Norway and Iceland: some authors assert that they are abundant on the coasts of Ireland, but that fact Montagu contradicts, and gives excellent authority for so doing. In that country the *Brent Goose* is very frequent, and being called by the same name, has undoubtedly occasioned the error; indeed the confusion between *this species* and the *Brent* renders it difficult to get at the *habitat* of the one, without confounding it with the other.

This species has a callous protuberance, or blunt spur upon the elbow, or front joint of the wing, the legs and feet are very thick and short, and have a stumpy appearance. They are easily domesticated.

Temminck observes that “ the birds of the first year have a large blackish band between the beak and the eye, formed by small spots, and also some blackish points upon the forehead; the feathers of the back and wings terminated by a red band; the sides more of an ash-coloured tint, and that deeper than in the old birds, the feet of a very dark brown. The females are smaller than the males.”

We have seen specimens of the Bernacle of a much darker colour than the one from whence our drawing was taken.

The history of this species has been rendered remarkable by the marvellous accounts which were in former times related concerning their propagation, or rather their growth. Almost all the old Naturalists as well Ornithologists as others, assert that they were produced from shells which

grew out of rotten shipwrecked timber, and other kinds of wood and trees which lay under water in the sea, and that these shells owed their origin to *spume* or *froth*, which in a short time assumed a *fungus* appearance upon the wood: others affirmed that they were produced from the *palms* or *fruits* of a tree like the *willow*, which, when ripe dropped off into the water and became a living bird. But even to enumerate these authors or to quote the entertaining parts of the wild whimsies with which they have embellished their descriptions of this bird, would far exceed the limits of this work, and would only serve to prove (were that necessary) how credulous, not only the great unthinking mass, but even the Philosophers once were, and how far it was possible for such circumstantially told miracles to lay the understandings of mankind asleep. We will however for the amusement of our readers give an extract from Gerard's Herbal, published in 1597.

“ But what our eyes have seene, and hands have touched, we shall declare.

There is a small Island in Lancashire called the Pile of Foulders, wherein are found broken pieces of old and bruised ships, some whereof have been cast thither by shipwrecke, and also the trunks and bodies with the branches of old and rotten trees, cast up there likewise ; where on is found a certain spume or froth that in time breedeth unto certain shells,* in shape like those of the muskle, but sharper pointed, and of a whitish colour, wherein is contained a thing in form like a lace of silke finely

* We have given with the portrait of the Bernacle a representation of this miraculous shell, it is the *Leepas Anatifera* of Linnaeus and is thus described in Wood's "General Conchology." "A bluish white shell with five valves, four of which are faintly striated ; the fifth, or dorsal valve, is smooth down the middle, and sulcated at the sides."

"These shells are found in considerable clusters, from half an inch, to an inch and three quarters in length, and more than an inch in extreme breadth. They are seated on a flexible pedicle, which is sometimes a foot long." "This pedicle resemble a small intestine : it is terdinous, cylindrical, and capable of great contraction ; while the animal is alive it is filled with a glairy mucilage, which exudes after death, and leaves the foot stalk empty and withered."

woven as it were together, of a whitish colour; one end whereof is fastened unto the inside of the shell, even as the fish of oysters and muskles are; the other end is made fast into the belly of a rude masse or lumpe, which in time commeth to the shape and form of a bird: when it is perfectly formed, the shell gapeth open, and the first thing that appeareth is the foresaid lace or string; next come the legs of the bird hanging out, and as it groweth greater it openeth the shell by degrees, till at length it has all come forth, and hangeth only by the bill: in a short space after it cometh to full maturitie, and falleth into the sea, where it gathereth feathers, and groweth to a fowle bigger than a mallard and lesser than a goose, having black legs, and bill or beake, and feathers black and white, spotted in such manner as our magpie, called in some places *pie-annet*, which the people of Lancashire call by no other name than tree-goose; which place aforesaid, and all those places adjoining, do so much abound therewith, that one of the best is bought for three-pence. For the

truth hereof, if any doubt, may it please them to repaire to me, and I shall satisfy them by the testimonie of good witnesses."

Such was the absurd notion which formerly prevailed, but which may now be ranked with the seducing song of the *Siren*, the prophetic chant of the *Swan*, and the irresistible force of the *Remora*.

This bird has been, improperly, called the *Canada Goose*, by Albin.

ANAS BERNICLA.**BRENT GOOSE.**

Brown; head, neck and breast black; collar white.

Anas Bernicla, Linn. Gme.

Le Cravant, Buffon

Brent, or Brand Goose, Pen. Lath.

Brent Goose, Bew. Mont.

Black Goose, Rural Sports.

PROVINCIAL.

RAT, OR ROAD-GOOSE, CLATTER-GOOSE, ROOD-GOOSE, HORIA OR HORIE-GOOSE, NUN GOOSE, QUINK-GOOSE.

This species of Goose measures in length about twenty nine inches, its name appears to have been derived from the mark on the neck, which may be compared to a brand.

The female is rather less than the other



I Hunt

Anas Bernicla. — Brant Goose.

sex; the plumage nearly the same. The young birds have not the white patch upon the side of the neck; this part as well as the head and upper part of the breast are of a dark ash-colour, and very feebly distinguished from the colour of the back; all the feathers of the back and breast are terminated by a band of reddish brown, and the ends of the feathers on the sides are reddish: the feet reddish black.

Our specimen, differs from the figure and description given by Bewick, but agrees with that of Montagu. The former in describing this species says that "the head and *upper half* of the neck are black, excepting a white patch on each side of the latter." Montagu says that "the head neck and upper part of the breast are black."

The Brent retires to the northern parts of both hemispheres to breed, and like the other species belonging to the same genus, quit those rigorous climes in the winter, and spread themselves southward in greater or less numbers, impelled for-

ward, according to the severity of the season. They are then met with on the British shores, but are more plentiful in Ireland, where they are taken in nets placed across the rivers, and are esteemed very good eating; they disperse over the marshes in the interior parts, feeding upon the roots, and also on the blades of the long coarse grasses and plants which grow in the water, they will also eat berries and marine insects.

These birds fly in wedge shaped flocks, making a continual cackling. They sometimes migrate in such congregated myriads as to starve each other. It appears according to Buffon, that previous to 1740, the Brent was scarcely known on the coasts of Picardy: during the winter of that year they appeared in such immense swarms and committed such devastation in the corn fields, that the people were literally raised *en masse* in order to attempt their extirpation, which, however, it seems they could not effect, and a change in the weather only, caused these unwelcome visitants to depart. During the same season these

birds were so plentiful on the coast of Kent, that they were reduced to a state of starvation, and suffered themselves to be knocked down with sticks; such a vast number of these birds were killed that they were carried in carts to the neighbouring towns and sold at six-pence each. They were almost innumerable about Sandwich in the winter of 1803, and so debilitated, as not to be able to rise after alighting, and many were caught by the hand.

It is a curious circumstance that such occasional excesses in the migration of some particular species, should occur so locally. Montagu assures us, that during the seasons above mentioned when these birds were so numerous on the eastern coasts of the kingdom, not a single instance came within his knowledge of any being observed on the west; yet in the year 1800 about Christmas, they were common contiguous to the coast of south Devon.

ANAS CANADENSIS.

CANADA GOOSE.

Cinereous; head and neck black; cheeks and chin white.

Anas Canadensis, Lin. Gme.

L'Oie a Cravate, Buffon

Canada Goose, Pen. Lath, Bew.

Cravat Goose, Wood.

The specimen from whence our drawing was made, measured three feet four inches in length, and the alar extent six feet, the weight twelve pounds and a half. It was a male bird and must have been unusually large, as the average weight given by authors, appears to be about nine pounds; it was furnished with a labyrinth at the end of the trachea, but as the bird was only lent us to make a drawing from, we could not examine it. Underneath or more properly, between the feathers upon the back and rump, were numerous hairs,



Anas Canadensis. - Canada Goose.



nearly as thick as hog's bristles, and two and a half inches in length: each hair was divided into two at some distance from the root.

This beautiful species has been reclaimed from a state of nature, and domesticated in many parts of Europe, particularly in France and Germany; and it is not very uncommon in England. It is as familiar, breeds as freely, and is in every respect as valuable as the *Common Goose*: it is also accounted a great ornament on ponds near gentlemen's seats. The wild stock from whence these birds were taken, are found in the northern parts of America; they form one of those immense families which, when associated with others of the same genus, are said, at certain seasons, to darken the air like a cloud, and to spread themselves over the lakes and swamps in innumerable multitudes.

They breed at Hudson's bay, and lays six or seven eggs.

Mr. Pennant gives the following interesting account of the method made use of in taking the different kinds of Geese,

“ The English at Hudson’s Bay depend greatly on Geese, of these and other kinds, for their support, and in favourable years kill three or four thousand, which they salt and barrel. Their arrival is impatiently attended ; it is the harbinger of the spring, and the month named by the Indians the *goose moon*. They appear usually at our settlements in numbers, about St. George’s day, O. S. and fly northward to nestle in security. They prefer islands to the continent, as further from the haunts of men. Thus Marble Island was found, in August, to swarm with Swans, Geese, and Ducks, the old ones moulting, and the young at that time incapable of flying.”

“ The English send out their servants, as well as Indians, to shoot these birds on their passage. It is in vain to pursue them : they therefore form a row of huts made of boughs, at musket shot distant from each other, and place them in a line across the vast marshes of the country. Each hovel, or, as they are called, *stand*, is occupied by only a single person. These

attend the flight of the birds, and, on their approach, mimic their cackle so well, that the geese will answer, and wheel and come nearer the stand. The sportsman keeps motionless, and on his knees, with his gun cocked, the whole time, and never fires till he has seen the eyes of the Geese. He fires as they are going from him, then picks up another gun that lies by him, and discharges that. The Geese which he has killed, he sets up on sticks as if alive, to decoy others; he also makes artificial birds for the same purpose. In a good day (for they fly in very uncertain and unequal numbers) a single Indian will kill two hundred. Notwithstanding every species of Goose has a different call, yet the Indians are admirable in their imitation of every one."

"The vernal flight of the Geese lasts from the middle of April until the middle of May. Their first appearance coincides with the thawing of the swamps, when they are very lean. The autumnal or the season of their return with their young, is from the middle of August to

the middle of October. Those which are taken in this latter season, when the frost usually begin, are preserved in their feathers, and left to be frozen for the fresh provisions of the winter stock. The feathers constitute an article of commerce, and are sent into England."

Mr. Lyson in the *Environs of London* gives an anecdote of the partiality of a Canada Goose for a Dog; the Goose could only be separated by force from her canine friend, and after his death, fell a sacrifice, (being killed by another dog) by endeavouring to possess that seat in the kennel where she had so long been fostered with the kindest friendship by his predecessor.





Anas mollysiana. — *Eider Duck.* *Holt & Lenné.*

ANAS MOLLISSIMA:**EIDER DUCK.**

Bill cylindric; cere on the hind-part bifid, wrinkled.

Anas Mollissima, Lin. Gme.

L' Oie a Duvat Eider, Buffon.

Eider or Cuthbert Duck, Lath. Pen.

Eider, or Edder Duck, Mont.

Eider Duck, Bewick.

Great black and white Duck, Edwards.

PROVINCIAL.**ST. CUTHBERT'S DUCK, DUNTER DUCK, COLK, DOWN GOOSE.**

We are indebted to the liberality of E. Lombe, Esq. of Great Melton, for permission to make drawings of both sexes of this species, in their mature plumage, from specimens in his valuable collection of British Birds.

The Eider Duck is nearly twice the size of the common Duck.

Authors agree in opinion that the male of this species does not arrive at maturity of plumage till the fourth year. The male at one year old has been described as having white, as well as black markings on various parts of the plumage; but Capt. Sabine in the recent voyage to the Arctic Regions, procured a specimen killed in the month of June, which exactly corresponded with the female in colour, but, was much larger in size; it had no appearance of change from the brown plumage, and certainly was not a bird of that year.

The great body of these birds constantly resides in the remote northern, frozen climes, the rigours of which their thick cloathing well enables them to bear. They are said to keep together in flocks in the open part of the sea, (particularly during the winter season) fishing and diving very deep in quest of shell-fish and other food, with which the bottom is covered; and when they have satisfied themselves, they retire to the shore, whither they at all times re-

pair for shelter, on the approach of a storm. Other less numerous flocks* of the Eiders branch out, colonize and breed further southward in both Europe and America: they are found on the promontories and numerous isles of the coast of Norway, the Feroet Isles, and on those of the Northern, and the Hebrides or the Western Isles of

* “ Nothing can be more pleasant in a fine day than to see two or three dozen of them sailing by: the lively black and white of the males, intermixed with the darker colours of the females, contribute much to diversify the scene; they are very thick of feathers, which makes them sit high on the water, and much adds to their appearance.” *Low's Fauna Orcadensis*.

† “ The Eider Duck, in Feroese *eava*, resides constantly in these islands, and in considerable numbers; but might be more abundant if the royal mandate for preserving them were strictly observed. A clergyman named Diurhuus, was at considerable expence to form an island, in a small inland lake named Toftevatn, for the purpose of affording shelter to the Eider Ducks, and in some years he had the satisfaction to have more than a hundred pairs, which built their nests there, and produced him a considerable revenue; but it is much to be regretted that this colony was not attended with the wished-for success.” *Landt's Hist. of the Feroe Islands*.

Scotland, and also on the Farn Isles, on the coast of Northumberland, which latter is the only place where they are known to breed in England, and may be said to be their utmost southern limit in this quarter, although a few solitary instances of single birds being shot further southward along the coast have sometimes happened.

The following is the account given of these birds by a well known and intelligent naturalist, a native of this City, (Norwich) as observed by him in Iceland. " On our landing on the rocky island (Akaroe) we found the Eider fowls sitting upon their nests, which were rudely formed of their own down, generally among the old and half decayed sea-weed, that the storms had cast high up on the beach, but sometimes only among the bare rocks. It was difficult to make these birds leave their nests, and so little inclined were many of them to do it, that they even permitted us to handle them whilst they were sitting, without their appearing to be at all alarmed.

Under each of them were two or four* eggs: the latter is the number they lay, but from many of them two had been taken for food by the natives, who prefer those which have young ones in them. The eggs are of a pale olive-green colour, rather larger than those of the common Duck." (*Hooker's Tour in Iceland.*)

" We were shown with great pleasure the immense number of Eider Ducks which breed on Vidoe, and which were now sitting, on eggs, or young ones, exhibiting a most interesting scene. The Stiftsamptman made us go and coax some of the old birds, who did not on that account disturb themselves, almost every little hollow place, between the rocks, is occupied with the nests of these birds which are so numerous, that we were obliged to walk with the greatest caution, to avoid trampling upon them; but besides this, the Stiftsamptman had a number of holes cut in

* Buffon, Von Troil and other authors, says five or six.

Von Troil informs us that it is not unusual for two females to lay their eggs in the same nest.

the smooth and sloping sides of a hill, in two rows, and, in every one of these also, there is a nest. No Norfolk housewife is half so solicitous after her poultry, as the Stiftsamptman after his Eider Ducks, which by their down and eggs, afford him a considerable revenue; since the former sells for three rix-dollars (12s.) a pound.” (*Ibid.*)

In Greenland, Iceland, Spitsbergen, Lapland, and some parts of the coast of Norway, the inhabitants eagerly watch the time when the first hatchings of the eggs are laid: of these they rob the nest, and also of the more important article, the down with which it is lined, which they carefully gather and carry off. These birds will afterwards strip themselves of their remaining down, and lay a second hatching, of also which they are sometimes robbed: but when this cruel treatment is repeated, they leave the place and return to it no more. Half a pound* of down is commonly ob-

* Pennant in his Tour in Scotland, says, “we robbed a few of their nests of the down, and after carefully separating it from the tang, found that the down weighed

tained from three nests, but in the nest it is mixed with a deal of grass and other foreign matters, and therefore forty pounds of such feathers, does not produce more than fifteen pounds, that are perfectly clean. At Hamburgh a pound of clean down costs sometimes three dollars. Von Troil in his letters on Iceland says that the down from the dead birds, is accounted of little worth having lost much of its elasticity. " There are (says the same author) generally exported fifteen hundred or two thousand pounds of down on the company's account, exclusive of what is privately sold.* " The young ones quit

only three quarters of an ounce, but was so elastic as to fill the crown of the largest hat."

It appears from this extract, that the quantity of down which lines the Eider's nests is much smaller on the Farn Islands than in Iceland and the more northern countries; a proof that these birds are able to accommodate themselves according to situation and climate.

* Montagu is of opinion that it is a mistaken notion that only Eider Down is used by the more opulent for coverings for beds, &c. " It is true all the down which is taken by the natives of the more northern regions is sold for such, but many others of the Duck tribe afford down not inferior to that of the Eider, but

the nest soon after they are hatched, and follow the female, who leads them to the water, where, having taking them on her back, she swims with them a few yards, and then dives, and leaves them floating on the water; in this situation they soon learn to take care of themselves, and are seldom afterwards seen on the land, but live among the rocks, and feed on insects and sea-weed."

We believe that every attempt hitherto made, to domesticate the Eiders in this country, has completely failed; probably for want of being able to supply them with a sufficient quantity of proper food.

Capt. Sabine in a paper published in the Linnean Transactions informs us that "the *trachea* of the male is uniform in size, rather compressed; the tympanum is small and flatly globose; the bronchiæ are of different sizes, the larger one being dilated considerably in the centre."

none in such great abundance: these however are mixed together and carried to market without discrimination."

ANAS MOSCHATA.

MUSK DUCK.

Face naked, papillous.

Anas Moschata, Gme. Lath.

Le Canard Musque, Buffon

Muscovy Duck, Cairo, Guinea, Indian Duck, Lath. Bew.

Musk Duck, Wood, &c.

These birds have obtained the name of Musk Duck, from their musky smell, which arises from the liquor secreted in the glands on the rump.

This bird is not so large as the immediately preceding species, but is much larger than the Common Duck, it measures about two feet in length.

In the female the bare warty, or carunculated skin, which is spread from the beak over the eyes, is of a much duller red, and does not cover so large a portion

of the head as it does in the male ; she is also less in size.

It is uncertain from whence these birds were first imported into Europe ; it is however, agreed, that they are natives of the warmer climates. According to Pennant they are met with in a state of Nature about lake Baikal, in Asia ; Ray, that they are natives of Louisiana ; Marcgrave, that they are met with in the Brazils ; and Buffon, that they are found in the overflowed savannas of Guiana, where they feed in the day-time upon the wild Rice, which grows there in abundance, and return in the evening to the sea : he adds, “ they nestle on the trunks of rotten trees ; and after the young are hatched, the mother takes them one after another by the bill, and throws them into the water. It appears that the Alligators destroy many of them, for seldom do the families of Ducklings contain five or six, though the eggs are much more numerous.” The old birds “ pass the hottest hours of the day perched on branching trees. They are shy and mistrustful, can scarcely be approached,

and are as difficult to shoot as most of the other water-fowl."

Sonnini informs us, that " the female begins to lay about the middle of April, and continues dropping every other day an egg, till she has twelve or fifteen. In the intervals she is observed to work at her nest, and arrange the materials. In thirty five days the brood is hatched. They lay two or three times a year in Guiana, and moult in Sept. and Oct. They are then so bare of feathers that they cannot fly, and suffer themselves to be taken by the natives."

This bird like all others in a state of domestication, produces an infinite variety of colours, in different individuals. They are a thriving and prolific species, but the young are much more difficult to rear than those of the Common Duck. Their flesh is high-flavoured and on that account much esteemed by many. A mixed breed between the Musk and Common species is not uncommon, but we have not been able to ascertain whether, or not, this progeny continues prolific.

ANAS CLYPEATA.

SHOVELER.

Extremity of the bill dilated, rounded,
with an incurved nail.

Anas Clypeata. Lin. Gme.

Le Souchet. Buffon

Shoveler. Pen. Lath. Mont. Bew.

ANAS RUBENS.

RED-BREASTED SHOVELER.

Brown ; chin and breast chestnut ; wings
tipt with grey ; wing spot purple edged
with white ; tail short, white.

Anas Rubens, Gme.

Red-breasted Shoveler, Pen. Bew. Lath.
Mont.

Canard Souchet ou le Rouge, Buffon.





Anas chapeira. *Shoreland*.

PROVINCIAL.

**BROAD BILL, SPOON-BILL DUCK,
BLUE WINGED SHOVELER.**

The Shoveler affords another example of the necessity, of not merely attending to the external appearance of the birds belonging to this genus, in order to identify the species.

Mr. Pennant described a bird in the British Zoology, under the title *Red-breasted Shoveler*, it is said to be sometimes taken in the decoys in Lincolnshire, and to be extremely rare. Other authors on the above authority, (and from a few specimens since taken in different parts of the kingdom), continued to describe the bird as a distinct species. Had it not been for the discovery of the different formations in the *tracheæ* of the various species belonging to this genus, we should still have remained in ignorance; not that the bird in the plumage as described by Pennant, is so extremely rare, but, because it is only to be obtained at a certain season of the year, and that,

when neither the gun is in use, nor the decoys in general open.

Montagu has described a bird, which agrees in plumage, with that noticed by Pennant, it was killed on the south coast of Devon, Aug. 5th, 1807. Upon dissection, the exact similitude of the *labyrinth*, with the same part of the *blue winged Shoveler*, left not a doubt, that it was the same species in one of the mutations of plumage, to which many of the tribe are known to be subject: either intermediate between the young and the adult, or the annual change of the adult, similar to what takes place with the Pintail.

We have had specimens of the male of this species in the plumage of the Red-breasted Shoveler, others with the breast mottled with semi-circles of brown and white, and others in the complete plumage of the female; these latter we consider to be the male birds of the first year, and from this circumstance it is probable that the Shoveler does not pair till the second.

Montagu says, that "It has been supposed that Shovelers breed at present in

our fens, but all our enquires on that subject in Lincolnshire went to negative the opinion." We take it for granted that this is correct, but we know to a certainty that they continue in the county of Norfolk the whole year, and breed in the Marshes at Winterton, Caistor, &c. We have had the young ones repeatedly from the age of a few days to that of their being able to fly.

It would be superfluous to describe the different changes of plumage to which this species is subject, (having given plates of the mature bird, the Red-breasted, plate 2, the male at a year old, and the young at the age of a week, plate 3), but as the following description of a male bird of this species killed at Yarmouth, May 24th, 1817, differs in some instances from the accounts before the public, we will take the liberty of inserting it. The beak black, near three inches in length, spreading over the end to a great breadth, the edges much pectinated,* nail hooked; irides yellow,

* The deeply pectinated beak of this species, forming an admirable filter for separating its food from the mud and water, is a striking instance of the bene-

the forehead, crown, cheeks and fore part of the neck sooty black; the back of the head and neck dark glossy green, changeable to blue or violet; breast white, having the ends of the feathers tinged with ferruginous; scapulars white with a few dusky spots; back dusky black, reaching up to the green on the neck in a peak, and the feathers on the upper part of it slightly edged with cinereous; rump dusky; upper tail coverts and from the vent to the tail black glossed with green; the feathers, which cover the sides of the tail, fine deep green: lesser coverts pale blue; greater, brown tipped with white; greater quills brown, the secondaries are of a glossy green on their outer webs; sides under the wings marked with fine undulating dusky lines; the tail consists of fourteen dusky feathers with their edges and tips dirty white; on each side of the base of the tail is a large patch of white; belly chestnut; legs orange red.

volence of the Creator in adapting the structure of his creatures to the modes of life which they are intended to lead.

The Shoveler may be said to measure about twenty one inches in length, and thirty inches in extent of wing. They differ in size and weight full as much as in the colour of their plumage. Their weight is from seventeen ounces to twenty two ounces, and females have been taken whose weight do not exceed that of the Teal.

The female places her nest in a tuft of grass or rushes, the nest is formed of fine grass, the usual number of eggs is eight or nine, but sometimes as many as thirteen; when she quits the nest she covers the eggs with grass, and as soon as she begins to sit, lines it with down from her body. The egg is of a dull cream colour, slightly tinged with green,* and weighs one ounce two scruples. Bewick describes the eggs as being of a rusty colour; Montagu, Graves, and others describe them to be rufous. Without imputing any intention on the part of those justly celebrated

* This description of the egg is not given from an individual specimen but from several, all of which agreed as much as possible.

authors to mislead, we have no hesitation in believing that the eggs so described, as belonging to the Shoveler, must have been those belonging to some other species. The young have been hatched under a hen, but they are found very difficult to rear. Mr. Youell of Yarmouth has succeeded in rearing several. They form an elegant addition to his collection of Water fowl.

As the end of all discussion should be the advancement of science, and as errors are received and appreciated in proportion to the celebrity of the authority from whence they are derived, we trust that in noticing a remark made by that great author to whom we are indebted for the revival of *this Science* by means of his justly celebrated Work on Natural History, will not be attributed to a wish to cavil on our part. Buffon on the authority of M. Bailon gives the following description of the young of this species. They “are hatched with a grey spotted down, like the ducklings, and are extremely ugly. Their bill is then almost as broad as their body,

whose weight seem to oppress them : they almost constantly rest on their breast. They run and swim as soon as they burst from the shell," &c. This account has been copied into many of our treatises on Ornithology and seems to have been received as precisely correct. The very young birds are certainly covered with grey spotted down, and are very much like ducklings of the same age ; but the account of the bill being nearly as broad as the body, &c. might do well enough as a caricature, but in describing Nature it is rather too much. The fact is, that the bill may be said to be a trifle broader than the same part of a duckling, but so little that a general observer would scarcely distinguish the difference. Indeed the following sentence admits as much, " they run and swim as soon as they burst from the shell," this could hardly be the case if the weight of the bill oppressed them as much as the remark would lead us to expect.

The Shoveler is found in America ; it is noticed by Russell among the birds of Aleppo ; and according to Pennant it breeds

in every latitude of the Russian dominions; it is also found in France, Germany, &c.

Temminck says that the food of this species consists of fish and insects, rarely of plants or grain. Those which came under our inspection, have in general had their gizzards filled with small shell-fish vulgarly called Pin-patches, or Periwinkles.

We have given a drawing of the *trachea* belonging to the male of this species.



Anas Strepera (Mas) — Male Gadwall.



Anas strepera. (f.) - Female Gadwall.



ANAS STREPERA:**GADWALL.**

Wing-spot rufous, black and white.

Anas Strepera, Lin. Gme. Lath.

Le Chipeau, Buffon

Gadwall, or Gray, Pen. Lath. Bew.

Gadwall, Mont. Wood.

PROVINCIAL.**RODGE.**

We are indebted to the Rev. G. Lucas for the specimens from whence our drawings were made. They were taken at Great Ormsby, in April 1818. We purchased a specimen in the market of this city, which measured nineteen inches in length, and two feet nine inches in the expansion of its wings. It was a male and appeared to be in the change of plumage between that of the male and the

other sex, which induces us to think that the young males resemble the adult females.

This species, according to Temminck, is very abundant in Holland, resorting to the same places as the Common Wild Duck. Its food consists of fish, shell-fish, insects, and aquatic plants. The female makes its nest in meadows among rushes, and lays eight or nine eggs of a greenish ash-colour. In a note given by Wood in his Edition of Buffon, it is stated that "the Gadwalls pass the summer in Russia and Siberia, except in the eastern parts, and in Kamtschatka. Mauduit received them from Louisiana. They differed in no respect from those of Europe. They make their appearance morning and evening, hiding themselves during the day in the rushes. Are fond of aquatic worms, and make their nests in hollow trees."

On the approach of winter they leave the European and Siberian parts of Russia, &c. and aided by the first strong north-east wind, make their appearance about the month of November, on the French,

British and other shores, where they are said to remain till the end of February or later. They are very shy and wary birds, feeding only in the night, and lurking concealed among the rushes in the watery waste during the day, in which they are seldom seen on the wing. These birds shew themselves expert in diving as well as in swimming, and often disappoint the sportsman in his aim, for the instant they see the flash of the pan, they disappear and dive to a distant secure retreat.

The feathers at the back of the head of the Male, are somewhat elongated and form a kind of crest. This circumstance is not noticed by either Bewick or Montagu. The latter author states that "this species of Duck appears to be extremely rare in England, so much so, that in no instance have we been able to procure a fresh specimen, in the great number of years we have attended to Ornithology." Bewick has not given a figure of the bird probably from the same cause.

It makes a noise similar to that of the Mallard, but louder. Its flesh is excellent.

The *trachea* of the male has a bony bladder and arch, somewhat in shape like that of the *Pintail*; but the globular part not quite so large: we may observe too, that it adheres to the side of the arch, quite to the bottom, whereas in the *Pintail* it is attached to the side of the arch by a small portion only.



Anas clangula (f.) — Female Golden Eye



Anas clangula (Mey.) — Male Golden Eye.



ANAS CLANGULA.**GOLDEN EYE.**

Varied with black and white; head tumid, violet; at each corner of the mouth a large white spot.

Anas Clangula, Lin. Gme.

Le Garrot, Buffon

Golden Eye, Pen. Lath. Bew. Mont.

ANAS GLAUCION.**MORILLON.**

Body blackish; breast waved; wing-spot white, linear.

Anas Glaucion, Lin. Gme. Lath.

Morillon Pen. Lath. Bew. Mont.

Brown headed Duck, Lewin.

PROVINCIAL.**PIED WIGEON, RATTLE-WING.**

The male Golden Eye measures eighteen inches in length, and two feet five inches in breadth. The female measures nearly one foot five inches by two feet three inches.

She makes a round nest of grass, lined with feathers from her breast; lays from seven to ten white eggs. Temminck says as many as fourteen, and that some of them breed in temperate climes.

The great dissimilarity between the two sexes of this species, has been the occasion of the diversity of opinion concerning the *Anas Glaucion*, and *Anas Clangula*.

Until the discovery of that strong specific character, the *trachea*, this species had been described by some as four distinct birds, and even by the first authorities as two, namely the *Golden Eye* and *Morillon*. The mature male cannot be mistaken.

The female is thus described by Montagu.
 “ The bill is yellowish towards the point; the head in this, as well as in the male, is full of feathers, which makes it appear large, but instead of being black, it is, as

well as the upper part of the neck, of a rusty brown; round the middle of the neck is a greyish ring; the lower part of the neck and breast mottled dusky and cinereous; back dusky, dashed with cinereous; the coverts of the wings and quills like the male, but the black parts of a dusky colour; the forepart of the legs and toes yellowish, the hind part and webs black."

The *males* of the first year resemble the old *females*, but the beak is of a dark ash colour, the irides of a greenish yellow; the toes of a yellowish brown. At the age of one year the white spot at the side of the beak begins to appear, and the feathers of the head become black without reflecting green.

It cannot be doubted that the descriptions of *Anas Glaucion* of Linnæus and Latham, the *Morillon* of Pennant, Latham, and Bewick, the *Brown headed Duck* of Lewin and the smaller *Red headed Duck* of Willughby and Ray, point out very exactly the plumage of the *old female* and the *young male* of this species.

Linnæus says that "this species inhabits Europe, Asia and North America;

builds in the hollows of trees and preys on shell-fish, mice, fish and frogs.”

They do not congregate in large flocks, nor are they numerous on the British shores, or on the lakes of the interior. They are late in taking their departure northward in the spring, remaining in this country sometimes till the latter part of April. In Norfolk from the whistling noise they make in the air, (occasioned by the quick and vigorous motion of their wings whilst flying) they are distinguished from the other *wild Fowl* by the name of *Rattle-wing*. They are excellent divers, and seldom set foot on the shore, upon which it is said, they walk with great apparent difficulty, and except in the breeding season, only repair to it for the purpose of taking their repose.

The attempts hitherto made, to domesticate these birds have failed of success.

The *trachea* of this species is of a curious and wonderful structure, for the *labyrinth* is not only of a different and much more complicated form than any other, but a singular enlargement takes place about the middle of the *trachea* it-

self: (see Fig. 1 and 2, Plate 4) this part consists of the same cartilaginous rings as the rest of the windpipe, and in fact is only a great enlargement of the same structure, being at least four times the diameter of any other part; this is the appearance the *trachea* assumes when the air is drawn into the lungs; but when the air is propelled from the lungs, this part is so formed by the inequality of its cartilaginous annulations, and intermediate membranes, that it contracts itself to little more than one third of its length, and is at the same time considerably compressed, (see Fig. 6, Plate 3).

ANAS GLOCITANS.

BIMACULATED DUCK.

Subcrested, brown waved with black ; head green ; before and behind the eyes a ferruginous spot ; breast with black spots ; wing-spot green edged with white.

Anas Glocitans, Gme. Lath.

Bimaculated Duck, Pen. Lath. Bew. Mont.

PROVINCIAL.

CLUCKING DUCK.

So little is known of this species that the female is not even described by Ornithologists. At least it has not come within the compass of our reading.

This bird is said (by Pennant and other authors) to measure twenty inches in length ; and to have been taken in a decoy in England. It has been met with along the Lena, and about the lake Baikal. It has a singular note somewhat like clucking ; and is thus described " Bill

deep lead colour; nail black : irides brown : crown brown, changeable with green, ending in a streak of brown at the hinder part of the head, with a small crest : between the bill and eye, and behind each ear, ferruginous spots, the first round, the last oblong and large : throat of a fine deep purple ; the rest of the head bright green, continued in streaks down the neck ; breast a light ferruginous brown, spotted with black : hind part of the neck and back dark brown, waved with black : wing coverts ash-coloured ; lower coverts streaked with rust colour ; scapulars cinereous : quills the same, inclined to brown : secondaries fine green, ending in a shade of black, edged with white : tail coverts deep changeable green : twelve feathers in the tail ; the two middlemost black, the others brown, edged with white : belly dusky, finely granulated : legs small, yellow : webs dusky”.

We are assured that a pair of these rare birds, were purchased at a Poulterers in London, during the winter of 1818, and are now in the possession of a Gentleman at Chelsea.

ANAS PENELOPE.

WIGEON.



Tail a little pointed; vent black; head brown : front white; back cinereous waved.

Anas Penelope, Linn. Gme.

Le Canard Cifflleur, Buffon

Wigeon, Pen. Lath. Bew. Mont.

PROVINCIAL.

**WHEWER, PANDLE-WHEW, WHIM,
YELLOW-POLE, WIGEON POKER,
WHISTLING DUCK.**

The Male of this elegant species measures nearly twenty inches in length, and two feet three inches in breadth.

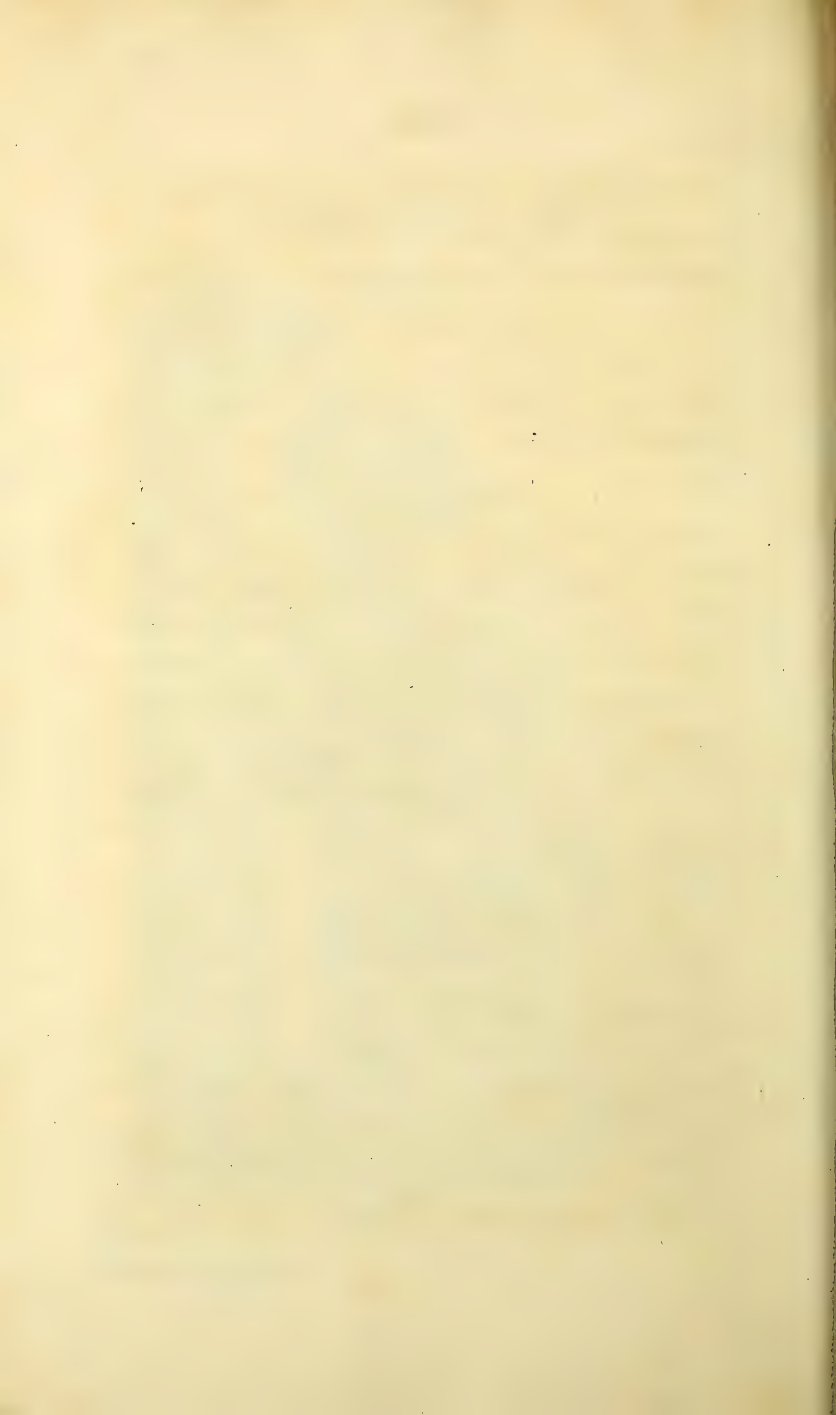
The Female does not measure more than seventeen inches in length and its alar extent is in proportion.

The Wigeon breeds in the North East parts of Europe; and lays eight or nine eggs of a dirty green ash colour. The young males resemble more or less their female parent.



I. Hunt

Anas Penelope — Wigeon Male & Female



This bird, like all the species of Ducks, is subject to variety according to age as well as season; in some specimens the forehead is almost white, and the feathers on the back and sides mottled with brown; the wing coverts mixed with white. The autumnal plumage of the female is sometimes very much tinged with rufous. Temminck remarks that “in the very old males the yellowish white of the forehead does not extend to the crown of the head, as it does in the males of a year old. The old males only have the wing coverts of a pure white.” We have given portraits of both sexes of this species, as likewise a drawing of the trachea, in order to enable our readers correctly to ascertain the bird in any change of plumage to which this species is subject.

On the approach of winter these birds quit the desert morasses of the north, and as they advance towards the end of their journey, spread themselves along the shores, and over the marshes and lakes in various parts of the continent, as well as those of the British Isles. In Somersetshire, and

Devonshire, they appear to be extremely plentiful; as it is asserted that more of this species are taken in the decoys, in those counties, than of all the other species of *Wild Fowl* collectively. The Wigeon remains with us during the winter months, at the end of which the old birds pair, and the whole take their departure northward about the end of March or middle of April. These birds commonly fly in small flocks, during the night, and may be known from other species of Ducks by their whistling note while they are on the wing. They appear to be easily domesticated in places where there is plenty of water, and must be greatly admired for their beauty, sprightly look, and frolicsome manners.

It appears to be a singular fact, that the female of this species will not perform the duties of incubation in a state of confinement, (instances are recorded that she will sometimes lay eggs, but that she generally drops them in the water, and of course takes no further care of them) while the other sex has been known to pair with a *female Pintail*, even where there has been

female Wigeons kept in the same pond. This has occurred more than once in the menagerie belonging to Lord Stanley; and it is remarkable that this Pintail was so tenacious of her nest in the advanced state of incubation, as to suffer herself to be lifted from her eggs, and effected the process of hatching them. The hybrids produced from these illicit intercourses were much plainer than the *male Pintail*, but more like the *female*, with a little of the head of the *male Wigeon*.

Attempts were made in order to ascertain whether these birds were capable of raising a future progeny, but although frequent intercourses were observed to take place between the sexes and many eggs produced, yet they were not prolific.

In the same menagerie Montagu assures us that a male Wigeon paired with a dun-coloured variety of the Common Duck, the eggs of which were prolific.

Gmelin says that this species inhabits Europe, Asia, and Africa. Buffon that it is also found in America. Its flesh is reckoned very good.

ANAS ACUTA.**PINTAIL DUCK.**

Tail pointed, long, beneath black ; hind-head each side with a white line ; back cinereous waved.

Anas Acuta, Lin. Gme.

Le Pilet, ou Canard a Longue Queue, Buffon.

Pintail, Pen. Lath. Bew. Mont.

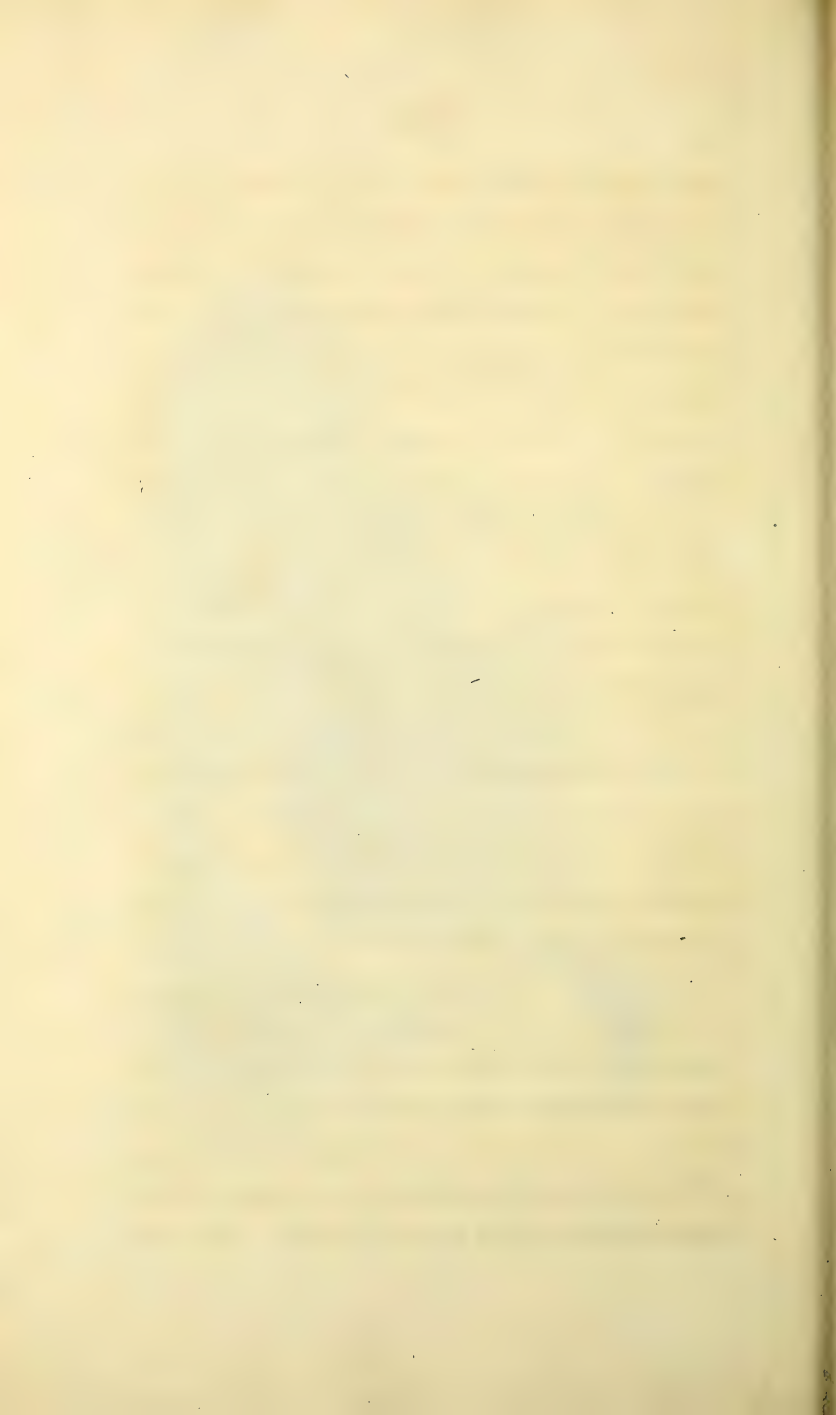
PROVINCIAL.**SEA PHEASANT, CRACKER, WINTER DUCK, CALOO OR COAL AND CANDLE LIGHT.**

The length of the male of this species is about twenty eight inches, and the alar extent thirty eight.

The female is considerably less than the other sex. She differs as much in plumage



Anas acuta. — Pintail.



from the male as the Wild Duck differs from the Mallard. Her head and neck is of a rusty brown, streaked with dusky; the back and scapulars dusky brown, transversely marked with narrow white bars across each feather; the speculum in the wing something like the male, but less conspicuous; the under parts light rusty brown, mottled with a deeper shade; the tail is brown and cuneiform; the two middle feathers are crossed with one or two pale lines, but not much longer than the next. The whole number of feathers sixteen.

According to Temminck the female lays eight or nine eggs of a greenish blue colour.

The head of the young male is of a reddish brown spotted with black; the belly yellowish, and the beauty spot of an olive green, and does not reflect different colours as is the case in the adult.

We have not been able to ascertain the fact, but are strongly inclined to believe, that a few of these birds continue with us the whole year, as we have seen several specimens exposed for sale in Norwich

Market during the months of June and July, at which time they appeared to be in an intermediate state of plumage between the two sexes. It is scarcely possible (from its delicate and slender form) to mistake the bird in any change of plumage, but we purchased two or three specimens and found the trachea of the male to correspond with the same part of the Pintail. Montagu in his Supplement to his Ornithological Dictionary has noticed facts relating to this species which are not to be found in any other work, and as his description perfectly agrees with the specimens above noticed, we will take the liberty of transcribing his remarks. "The males which have been domesticated for several years, gave us an opportunity of observing that they moult twice in the year, assuming at one period a very near resemblance to the female, which at other times is known to be so extremely dissimilar."

"In the month of June, or beginning of July, these birds commenced their change of plumage, and by degrees, after making

a singular mottled appearance, especially on the part of the body that was white before, became by the first week of August, entirely of a brown colour. The beautiful bronze on the head, the white streak on each side of the neck, and all the white beneath, as well as the elegant scapulars, had all entirely vanished, and to all appearance a sexual metamorphosis had taken place. But this change was of short duration, for about the latter end of September, one of the males began to reassume the masculine attire; the white on the under parts of the body, streaks on the neck and scapulars, and some bronze on the head were evident, and by the middle of October this bird was again in full plumage."

The notes of the Pintail are extremely soft and inward, the courting note is always attended with a jerk of the head; the other greatly resembles that of a young kitten. In the Orkney's it has acquired the epithet of *Coal and Candle Light*, from its singular cry.

It is frequently taken in our Decoys

during the winter months, and from the form of its tail and the delicacy of its flesh it is called in many places the *Sea Pheasant*. It is supposed to breed in Russia and at Hudson's Bay where it is common, it is also found in China.





Anas glacialis - Long tailed Duck.

ANAS GLACIALIS.**LONG TAILED DUCK.**

Tail pointed, long ; body black, beneath white.

Anas Glacialis, Lin. Gme.

Anas hyemalis, Gme.

Le Canard de Miclon, Buff.

La Sarcelle de Feroe, Buff.

Le Canard a Longue Queue de Terra-neuve, Buff.

Swallow tailed Shieldrake, Will. Low.

Long tailed Duck, Pen. Lath. Bew. Mont.

PROVINCIAL.**SHARP TAILED DUCK.**

Our portrait of this very elegant species was taken from a specimen in the collection of E. Lombe, Esq.

The male of this species is about the size of a Wigeon ; twenty two inches in length.

Bewick says that the legs and toes are pale blue : webs and nails black. Montagu describes the legs as being of a dull red ; with black claws. Temminck informs us that the legs and toes are yellow, webs dusky.

The old female differs considerably from the mature bird of the other sex ; her tail is short, having its feathers edged with white, the two middle ones are not elongated : forehead, gorget and eye brows of a light ash-colour ; nape, front, and lower part of the neck as well as the belly and abdomen of a pure white ; top of the head and a large patch on each side of the neck dusky ash-colour ; breast variegated with ash-colour and brown ; feathers of the back, scapulars and coverts black in the middle edged and terminated by ash-coloured red ; the rest of the upper parts of a sooty brown ; the blue of the beak divided by a yellowish band ; irides light brown ; feet lead colour.

The young of the first year do not differ much from the old female ; the light colour of the face is varied by numerous brown or

ash-coloured spots; the throat fore part of the neck and nape of an ash-coloured brown; the lower part of the neck, a large spot behind the eyes, belly and abdomen white; breast and thighs varied with brown and ash-coloured spots.

The male, even at the age of two years, has not the crown of the head and nape of a pure white; these parts, the throat and often the fore part of the neck are of a dusky brown, but interspersed with white and ash-coloured spots; the scapulars which are white or nearly so in the old males, are at this age of a yellowish or light brown, with large spots of a deeper colour; the middle feathers of the tail exceed the others in length by an inch or more. In this state of plumage (says Temminck) it is the *Anas hyemalis* of Gmelin.

This species is said to breed in Greenland and in the neighbourhood of Hudson's Bay. The female makes her nest among the grass near the water, lined like that of the Eider Duck, with her own equally valuable down. She lays five white eggs spotted with blue, about the size of those

of a Pullet. It is the opinion of some authors that two females, at times, will lay their eggs in the same nest, as instances are recorded of ten, or twelve eggs, having been found in the same place.

The Long-tailed Duck, does not in the winter, like many of the other tribes, entirely quit their native haunts in the northern extremities of the world, but considerable numbers remain there, enduring its gloomy rigours, as well as enjoying the perpetual day, under the influence of the unsetting summer's sun. Numerous flocks, however, spread themselves southward in the winter, from Greenland and Hudson's Bay, as far as New York in America; and from Iceland and Spitsbergen, over Lapland, the Russian dominions, Sweden, Norway and the northern parts of the British Isles, in Europe. The same progress of them is observed in Asia, where they are met with about Kamtschatka, &c. They frequent the lakes in the interior of all those parts as well as the sea shores. The flocks which visit the Orkney Isles appear in October, and continue

there till April; and about sun-set they are seen in vast companies going to, and returning from the bays, in which they frequently pass the night, making (says Low) “ a great noise, which may be heard at a vast distance, especially in a still frosty night, when it may be heard some miles.

They are very scarce in England, being found only in the most severe winters and even than in small straggling parties. They are expert divers, but as their food consists entirely of shell fish and aquatic worms, their flesh is not in request for the table.

Capt. Sabine, from observations made during the recent Voyage to the Arctic regions, has thrown much new light upon the Natural History of this species. In a paper published in the Linnean Transactions he says that “ As the Long tailed Duck only winters in Europe, returning to the Arctic regions in the summer, the state of its plumage at the time we were in Baffin’s Bay is interesting. I obtained a specimen of a mature male on the 30th of June. Its winter dress has been detailed

by several of the authors referred to, but I believe a description of its summer plumage will be new. The whole under part of the neck and the breast is black, the appearance of the black spot so conspicuous in winter being removed by the general diffusion of the dark feathers; the sides of the head and a little beyond the eye are a brownish white; round the eye are some white feathers; from the bill a black line runs on the top of the head to the crown, which is black; the back of the neck is chiefly black, but at a small distance below the crown a few white feathers are intermingled with the black ones across the neck; the black of the neck extends down the back, but in the centre of the upper part of the back near the neck is a patch of black feathers edged with ferruginous; the scapulars are long and narrow, black in the centre and edged with ferruginous white, and the longer ones having more white; the wings are a brownish black, the quill feathers being the palest; the lower belly and sides to the rump and the under tail coverts are white, a line of black

descending between the white from the back to the tail; of the four middle tail feathers two are eight inches, the others are about four and a half inches long.”*

The editor cannot omit this opportunity of returning his sincere thanks to Jos. Sabine, Esq. for the kind and liberal manner in which he conveyed to him permission to make drawings from any specimen in his truly valuable collection of British Birds; a favour which he trusts he shall ever remember with gratitude.

* Since the foregoing remarks went to press, we have been gratified with the examination of several specimens which were exposed to sale in the Norwich Market in the early part of November, 1819. It is the only instance we remember of this species having been shot in Norfolk. We purchased three specimens, two of which proved upon dissection to be males, and the other a female; this latter agrees with Temminck's description of that sex. One of the male birds had a single feather, which measured two and a quarter inches longer than the rest. The other had fourteen feathers in its tail rather cuneiform but no material difference observable in their length. The legs of all of them were bluish; webs and nails black: their gizzards were filled with a species of weed which we are unacquainted with, mixed with a few pebbles. We have given a plate of one of the specimens, as likewise a correct representation of its singular trachea which will enable our readers to ascertain the species in any change of plumage.

ANAS FERINA.**POCHARD.**

Cinereous waved; head brown; pectoral band, vent and rump black.

Anas ferina, Lin. Gme.

Anas Rufa, Gme.

Red necked Duck, Turton

Le Canard Milouin, Buffon

Pochard or Red headed Wigeon, Pen.
Lath.

Pochard, Bew. Mont.

PROVINCIAL.

**POKER, DUN-BIRD, VARE HEAD-
ED WIGEON, GREAT HEADED
WIGEON, ATTILE DUCK, BLUE
POKER, RED HEADED POKER,
DUN-CUR.**

The male of this species of Duck measures nineteen inches in length, and two feet six inches in breadth.

Bewick and Montagu differ in the num-

ber of the feathers which compose the tail; the former stating the number to be twelve, while the latter asserts there are fourteen. Temminck observes that the base of the beak in the old male birds is black as well as the point, and that the webs of the feet are black.

The old female, which is smaller than the male, has the crown of the head, the sides and back of the neck, the upper part of the back and the breast of a ferruginous brown; but the feathers of the breast are edged and shaded with reddish white; the space between the beak and the eye, that round the eyes, the throat and fore part of the neck white spotted with ferruginous; some large brown spots upon the sides; wings ash-coloured with white spots; the undulating lines of the back less distinct than in the male; middle of the belly whitish; the band upon the beak very narrow and of a dull blue colour.

The males of the first year resemble the female: those of one and two years of age, have the chestnut of the head and neck less vivid; the black of the breast not so

deep, that part being usually dusky brown, and even often tinged with light brown. Sometimes there are spots upon the back and sides.

Temminck observes that the female lays twelve or thirteen greenish white eggs.

The Pochard is of a plump round shape, and its walk is heavy, ungraceful and waddling; but when on the wing, it flies with greater rapidity than the Mallard, and in flocks of from twenty to forty, commonly in a close compact body, whereby they may be easily distinguished from the triangular shaped flocks of the Wild Duck, as well as by the difference of the noise made by their wings.

These birds are met with through the whole extent of North America, and are likewise found on all the great rivers and lakes in every latitude of the Russian dominions. They leave the northern parts on the approach of winter, and migrate southward.

They arrive in France and England in considerable numbers (according to the severity of the season) in October. Many of them are caught in the decoys of Lincoln-

shire Norfolk, &c. and sent to the different markets under the name of Dun-birds. They are esteemed a great delicacy.

Montagu observes that "it has been said, that this species will not live in confinement; on the contrary, no bird appeared sooner reconciled to the menagerie. One now in our possession; that was badly wounded with a broken wing, took to feeding on corn immediately, and is now, after three years confinement, very tame and in high health."

The same author gives the following description of the method formerly practised for taking the Pochard. "Poles were erected at the evenues to the decoy, and after a great number of these birds had collected for some time on the pool, (to which wild fowl resort only by day, and go to the neighbouring fens to feed by night), a net was at a given time erected by pullies to these poles, beneath which a deep pit had previously been dug; and as these birds like the Woodcocks, go to feed just as it is dark and are said always to rise against the wind a whole flock was taken together

in this manner; for when once they strike against the net, they never attempt to return, but flutter down the net till they are received into the pit, from whence they cannot rise, and thus we are told twenty dozen have been taken at one catch."

Buffon says that the cry of the Pochard resembles more the hollow hiss of a large serpent than the voice of a bird.

It has been doubted whether any of this species remain with us after the time of the vernal migration to the North. We are assured by Mr. Smith of Diss, that he has seen both sexes of the Pochard during the breeding season on Scoulton Mere, and that he found their nest and took the eggs, some of which are at this time in his collection. A female bird was shot in Norfolk on the 14th of July, 1818, so that it appears certain that a few, at least, remains with us the whole year.

The trachea somewhat resembles the same part of the Scaup Duck (see plate.)



Mallard

Anas querquedula — *Garganey*

ANAS QUERQUEDULA.**GARGANEY.**

Spot on the wings green; above the eye a white line.

Anas Querquedula, Lin. Gme.

Anas Circia, Lin.

Le Sarcelle, Buff.

———— common, Buff.

Garganey, Pen. Lath. Mont. Bew.

Summer Teal, Lath.

PROVINCIAL.**PIED WIGEON, CRICKET TEAL,
SUMMER TEAL.**

This species which is only a little larger than the Teal, is clothed with an elegant plumage, and has altogether a most agreeable and sprightly look. It measures sixteen inches in length and twenty eight in breadth.

Temminck observes that the *Old Male* of this species is the *Anas Circia* of Linn : and *Summer Teal* of Latham.

The female which is smaller than the male, has a white band marked with brown spots, behind and under the eyes; the throat white; the upper parts of its plumage dusky brown edged with light brown, the lower plumage approaching to white; the speculum or beauty spot upon the wing dull green.

The young males before they moult are like the females; some are often seen at the beginning of winter with the throat white; many brown feathers mixed with those which adorn the bird in its perfect plumage; the white band spotted with brown, the reddish brown of the head not so deep, the belly not tinged with yellow, but often marked with brown spots.

The author before quoted, informs us that the female breeds in temperate climes and makes her nest of grass in marshy meadows; and lays twelve eggs of a greenish yellow colour.

We had a specimen of the male of this

species, sent to us to be preserved in the month of May, 1819. And a pair of these birds were shot on the 6th of May, 1817, at Hockwold in the county of Norfolk; the female had a perfect egg in her; from which circumstance they would doubtless have bred in that neighbourhood. This fact proves what has not been before ascertained, that some of this species continue in England the whole year. They are abundant in Holland, and are found in most countries of Europe and Asia, as far as Kamtschatka. It is likewise found in Louisiana.

Garganeys feed on snails, insects, worms aquatic plants and their seeds; and occasionally on small fish.

Buffon informs us that “in the pairing season, the male utters a cry like that of the Rail; yet the female seldom makes her nest in our Provinces, and almost all these birds leave us before the fifteenth or twentieth of April. They fly in bands in the time of their migrations, without preserving like the Ducks any regular order”.

ANAS CRECCA.

COMMON TEAL.

Wing-spot green; a white line above and beneath the eyes.

Anas Crecca, Lin. Gme.

Le petite Sarcelle, Buffon

Common Teal, Pen. Lath. Bew. Mont.

Anas Balbul, Gmelin

Summer Teal, Lath. &c.

This beautiful species of Duck measures about fourteen inches and a half in length, and twenty three and a half in the expansion of its wings.

The female which is less than the male, is freckled about the head and neck with brown and white. She has not the green patch behind the eyes, but a brown streak there which extends itself to the nape of the neck: the crown of the head is dark brown, the upper mandible yellow on the edges,

olive green on the sides, and olive brown on the ridge; nail black, and the under beak yellow; breast, belly, and vent glossy yellowish white, spotted on the latter parts with brown: the upper plumage is dark brown, each feather bordered with rusty brown, and edged with grey: the wings and legs nearly the same as those of the male.

The nest of this bird is not uncommon in France. It is made of rushes lined with down. This nest, constructed with much care, is pretty wide, and rests on the surface of the water, so as to rise and fall with it. The eggs amount to ten or twelve, and are about the size of a pigeon's; they are dirty white with hazel spots.

Mr. White, in his natural history of Selborne, mentions young Teal having been taken on the verge of a pond in Wolmer Forest, and we have not the least doubt that they breed in several places in the County of Norfolk, as we have frequently seen young birds of this species brought to market, and a friend of ours bought an im-

mature bird at Yarmouth on the first of August, 1816.*

Buffon observes that “ the female take the whole management of the incubation ; the males seem to leave them and associate together during that time, but in Autumn they return to their families”.

Temminck says that “ the young males before moulting are like the females, some of them are often met with at the beginning of the winter which have the throat white, or spotted with black ; the bay and green upon the head indistinct and interspersed with white and ferruginous dots ; many brown feathers mingled with those which constitute the full plumage of their sex ; the upper band which borders the speculum upon the wing, is often at this period shaded with ferruginous and there are small black spots upon the white feathers of the belly. The females and young of this species may readily be distinguished from those of the preceeding by the speculum

* Montagu informs us that “ it is said to breed in the mosses about Carlisle” and that he was informed it has been known to breed in confinement.

upon the wing. In the Teal it is half of a dark green and half of a deep black, in the Garganey of an ash-coloured green."

The Teal is an inhabitant of Europe, Asia, and America. In the winter season it is common in England, where it is highly esteemed for the excellent flavour of its flesh. They feed on cresses, various seeds, grasses, and aquatic plants, as well as upon the smaller animated beings, with which stagnant waters are so abundantly stored. Their flight is swift, and their cry has been compared to the words, *vouire*, *vouire*.

This species like most of the Duck tribe, is subject to variety, which has occasioned it to be made into two or three species, to one of which has been given the name of *Summer Teal*.

For the formation of the *trachea* see plate.

ANAS HISTRIONICA.

HARLEQUIN DUCK.

Variegated with brown, white, and blue; ears, double line on the temples, collar and pectoral bar white.

MALE.

Anas histrionica, Lin. Gme,

Le Canard a collier, Buff.

Dusky and spotted Duck, Edwards.

Harlequin Duck, Pen Lath.

FEMALE.

Anas Minuta, Lin.

Le Canard brune et blanche, Buff.

Little brown and white Duck, Edwards.

We are enabled through the liberality of J. Sabine, Esq. Cavendish Square, to present our readers with portraits of the male and female of this rare and elegant species of Duck, from specimens in his collection.





Anas Histrionica.

Harlequin Duck (Male.)



I.H. 1840.

Anas Histrionica (Ful.) Harlequin Duck (Female)

The Ornithologist is indebted to G. Montagu for the first notice of this bird as a British species. His description was given from specimens in the possession of Mr. Sowerby, they were killed on the domains of Lord Seaforth, in Scotland, a few years since.

“ The great Linnæus (says Montagu) had considered the female of this species as distinct from his *Anas histrionica*, and has given it under the name of *Anas minuta*, Gmelin has followed him, but not without expressing his doubts. Various other authors have considered the sexes as distinct species; but later observations have clearly proved, beyond a doubt, that the *Anas minuta* is no other than the female *Harlequin Duck*.”

This species is about the size of a Widgeon, but shorter, measuring seventeen inches in length; and weighs twenty ounces.

The female is less than the male being not more than fourteen inches in length.

It is said to frequent bays and rivers during the summer months and to be fond of

shady places, making its nest on shore amongst shrubs ; particularly in the neighbourhood of the most rocky and rapid torrents. Lays ten or twelve eggs like those of a pigeon. Temminck observes that “ the young of the first year are variegated with brown and a light shade almost white ; but they may be distinguished by the white spots which shew themselves upon the sides of the head. The males do not assume the white band upon the breast till they are two years of age.”

The Harlequin duck is said to dive admirably in search of shell-fish, the spawn of fish and marine insects, on which it feeds. It flies swift, and to a great height. Its note is a sort of whistle. In autumn when the young are capable of flying, they migrate southward, to pass the winter in the open sea.

This species is found in Iceland, Greenland, Kamtschatka, and is common in America, as low as Louisiana.

ANAS BOSCHAS.**COMMON, OR WILD DUCK.**

Cinereous; middle tail feathers (of the male) recurvate; bill straight; collar white.

Anas Boschas, Lin. Gme.

Canard sauvage, Buffon

Wild Duck, Pen. Lath. Bew. Mont.

Anas Domestica, Gme.

Tame Duck, Lath. Bew.

PROVINCIAL.**ROUEN DUCK, HOOK BILLED DUCK, (varieties) STOCK DUCK.**

The male of this species which is commonly called Mallard or Drake, measures twenty-three inches in length, and thirty-five in the expansion of its wings. The female or Duck is not so large as the other sex.

The young males before moulting are like their female parent.

Wild Ducks breed in the neighbourhood of many of our rivers and broads, generally preferring the most sequestered morasses or bogs, far from the haunts of man, and hidden from his sight among reeds and rushes. When she has chosen her place for nidification she merely collects a sufficient quantity of such vegetables as lay contiguous to form herself a nest, this she carefully lines with down, and deposits from ten, to eighteen eggs of a bluish white colour, when she leaves her nest she carefully covers her eggs with part of the down. The young take the water as soon as hatched, which is usual in May; but the growth of their wings is very slow, and they are unable to fly before August. To her young unfledged family, she is a fond, attentive, and watchful parent, carrying or leading them from one pool to another as her fears or inclinations direct her, and she is known in this country to use the same wily stratagems to mislead the sportsman and his dogs as those we intend noticing respecting the Partridge,

It must be observed that the duck does

not invariably make her nest close to the water, on the ground : many instances are recorded of her depositing her eggs at a considerable height. One mentioned by Mr. Tunstall, at Etchingham, in Sussex, was found sitting upon nine eggs on an oak tree at a distance of twenty five feet from the earth. Montagu mentions an instance of a half-domesticated Duck making its nest in Rumford Tower, hatching her young, and carrying them in safety to a piece of water at a considerable distance. The same author says that “ we recollect the nest of this bird being found in the head of an old pollard willow impending the water, from whence the young might readily drop unhurt into their natural element.” The author of the Rural Sports says that “ the Gamekeepers of Mr. Eyre, of Passop, Derbyshire, in 1801, observed a *wild Duck* fly out of a large Oak, in which, the year preceding, there was a Hawk’s nest; upon examining, the nest was found in complete repair, and contained two Eggs, recently laid by the Duck in it.”

The following is copied from the Sporting

Journal kept at Holkham, the Seat of T. W. Coke, Esq. M. P. " William Jones late huntsman to T. W. Coke, Esq. shot in the Obelisk wood at Holkham, from her nest in which were deposited nine eggs in a forward state of incubation, a Wild Duck on the top of a very high Scotch Fir Tree, in the year 1782. He saw her tail overhanging the edge of the nest, and expected when he shot to have killed a Hawk."

It appears to be the general opinion of authors, that Wild Ducks *pair* during the breeding season, but, that when domesticated they are *polygamous*. We are doubtful respecting this fact, or more properly speaking, are inclined to believe that they are the same in both conditions. Our reasons for this opinion are that we have frequently seen the Duck followed by her young ones, without a Mallard in company, this is not the case with other water fowl which pair, and we have been assured by sportsmen of undoubted veracity in the neighbourhood of Yarmouth, that during the time of the Ducks sitting upon their

eggs, that numbers of Mallards are to be found congregated upon Breydon.

The number of these birds which at present breed in this country are few, when, compared with those of former times, and as cultivation increase, their numbers must still more decrease. It is certain that the greater part of those taken in our decoys in winter, come to us from the more northern regions. Formerly, according to Willughby, the Ducks, while in moult and unable to fly, were driven by men in boats, furnished with long poles, with which they splashed the water, between long nets, stretched vertically across the pools, in the shape of two sides of a triangle, into lesser nets placed at the point, and in this way, he says, four thousand were taken at one drawing in Deeping-Fen; and Dr. Latham has quoted an instance of two thousand six hundred and forty six being taken in two days.

Many and various are the contrivances which have been used, in both ancient and modern times, to catch these wild, shy, and wary birds; and from the avidity with

which the sport is still followed, it is hardly necessary to observe how highly they are esteemed, and what place they hold as a delicacy upon the table.

To describe these various contrivances would far exceed our limits, it will not be proper however, to omit noticing the *decoy*, which from its superiority over every other method, promises to continue long in use; for in that mode the Mallard and other Ducks are taken in great numbers at a time; whereas all the other schemes of lying in ambush, shooting, baited hooks, wading in the water with the head covered in a perforated wooden vessel, or in a calabash, &c. are attended with much watching, toil, and fatigue; and are also comparatively trifling in point of success.

The author of the Rural Sports says that "A Decoy is generally situated in a marsh, so as to be surrounded with wood or reeds, and, if possible, both, the better to keep the pond quiet, and that the repose of the *fowl* may not be interrupted; for the greatest part of the animal world pass their lives in a state between sleep and

inactive reverie, except when they are excited by the calls of hunger. In this pond the birds sleep all day; as soon as the evening sits in, the decoy *rises* (as it is termed,) and the wild fowl feed during the *night*. If the evening is still, the noise of their wings, during their flight, is heard at a great distance, and is a pleasing, although rather a melancholy sound. In Somersetshire this *rising* of the decoy in the eve is called *rodding*. The decoy ducks (which are either bred in the pond yard, or in the marshes adjacent; and who, although they fly abroad, regularly return for food to the pond, and are mixed with tame ones, which never quit the pond, and are taught for this purpose) are fed with hemp seed, oats, and buck wheat, of which it will take, for the use of a pond for a year, about eight quarters of oats, one of hemp seed, and one of buck. The other expenses are: a man to constantly attend the *decoy*; every four years the poles and nets will require to be new, as in the intervening years they will be replaced; some at one time, some at another, so as to be all re-

newed in the above period. Reeds for repairing screens, turf, rent, decoy ducks, and many et-ceteras are also to be included and the repayment all depends upon the haunt of Fowl which take to the pond."

"In working, the hemp seed is thrown over the screens in small quantities, to allure the fowl forward into the pipes; of which there are several leading up a narrow ditch, that close at last with a *funnel net*. Over these pipes, which grow narrower from the first entrance, is a continued arch of netting suspended on hoops. It is necessary to have a pipe for almost every wind that can blow, as upon this circumstance it depends which pipe the fowl will take to; and the decoy man always keep to *lee ward* of the wild fowl, that his effluvia should not reach them: and this he likewise takes a further care to prevent, by keeping a piece of turf burning in his mouth or hand: for such is the acute sense of smelling which wild fowl possess, that, should the pond be full of fowl if they scent a man not a bird would remain in it a moment. Along each pipe are pla-

ced *reed screens* at certain intervals, which protect the decoy man from being seen, until he pleases to shew himself, or the birds are passed, up the pipe, to which they are led by the trained birds, who know the whistle of the decoy man, or are enticed by the hemp seed. A dog, which is generally preferred to be of a red colour, is sometimes used, who is taught to play backwards and forwards, between the *screens*, at the direction of his master; the fowl, roused by this new object, advances towards it whilst the dog is playing still nearer to the entrance of the pipes, until at last the decoy man appears from behind the screens, and the wild fowl, not daring to pass by him, and unable to escape upwards on account of the net covering upon the hoops, press forward to the end of the *funnel net*, which terminates upon the land, where a person is ready to receive them and break their necks; in doing of which there is much dexterity. The trained birds return back past the decoy man into the pond again, until a repetition of their services is required. A side wind is the best to work the birds."

The general season for taking wild fowl in decoys is from the latter end of October until February. The taking of them earlier is prohibited by Act of Parliament.

We could have wished to have presented our readers with the number of wild Fowl taken in the different decoys in the counties of Norfolk and Suffolk, but found that to be impracticable. They must in certain seasons amount to an incredible number. Mr. Pennant states that thirty one thousand two hundred have been taken in one season in the decoys in the neighbourhood of Wainfleet.

It is in the month of October that the Wild Duck begin to appear in this country. At first, their flocks are small and unfrequent; but these are succeeded in November by more numerous bodies. They may be distinguished in their flights by the oblique lines, and regular triangles they form in the air.

As long as the season continues mild the aquatic insects and small fish, the frogs which have not yet crept under the mud, the seeds of the bull-rush, the water lentil,

and other plants, afford abundant subsistence to the Ducks. But when the larger pieces of standing water are frozen, they remove to running springs, and sometimes when the weather is very severe, resort to the edges of woods in search of acorns, and even alight upon fields sown with corn. In the spring the greater number of these birds leave this country preferring the more northern regions where they breed and rear their young, in that season says a celebrated author, "they may be said to cover all the lakes and rivers of Siberia and Lapland, as far north even as Spitsbergen and Greenland."

It not unfrequently happens that a large variety of this bird is caught in our decoys, or shot by the sportsman; but these are only half domesticated ducks which are obliged to leave the canals or pieces of water belonging to private persons owing to the severity of the frost. These are called *Rouen Ducks*.

The *Hook billed* is merely a variety of the common domesticated Duck. The only difference is in the form of the beak,

which is longer, and bent downwards; this variety we are assured is by no means uncommon in some parts of this country. There is also another variety with divided toes, not connected with a web. These like the preceding are merely kept through curiosity.

The male of this species is subject to a similar change of plumage as we before noticed in the Pintail, &c.

The Wild Duck is an inhabitant of Europe, Asia, and America.

That our tame Duck derives its origin from this species, there cannot be a doubt in the mind of any person who has examined the formation of the *trachea* and “ what (as Montagu observes) Professor Gmelin can have discovered in the *Domestic Duck* to have induced him to separate it from *Anas boschas* we cannot conceive. There is not the most trifling difference in the structure of the *trachea* and its labyrinth: the number of feathers in the tail, and the singular recurvature of the middle ones, are similar; they readily mix, and their produce are equally fertile, a circum-

stance at present, which alone amounts to almost a positive proof of affinity. But it may fairly be asked, if the *boschas* is not the origin of the Domestic Duck, where is it to be found in its native state."

Buffon observes that "Man made a double conquest when he subdued inhabitants at once of the air and of the water. Free in both these vast elements, equally fitted to roam in the regions of the atmosphere, to glide through the ocean, or plunge under its billows, the aquatic birds seem destined by nature to live for ever remote from our society, and from the limits of our dominions."

"Their only tie to the land is the necessity of depositing the fruits of their loves. By availing themselves of that necessity, and of the feeling which so powerfully animates all creatures, we have enslaved them without imposing restraint; and by their fondness to their offspring we have attached them to our abodes."

Long domestication has, however deprived the Tame Duck of that keen, quick, and sprightly look and shape which distin-

guishes the Mallard, and substituted a more dull, and less elegant form and appearance in their stead. Many of them are cloathed in nearly the same plumage as the wild ones; others vary greatly from them, as well as from each other, and may be said to be marked with almost all colours; but all the males (as has been before observed) still retain the unvarying mark of their wild original, in the curled feathers of the tail.

Daniel's observes that the neck of the Wild Duck is more slender, the foot smaller, the nails more black, and the webs of the foot finer, than the same parts of the Tame Duck.

We have given the head and neck of the *Hook billed* variety, (see plate).



Anas rufina (f.) - Red-breasted Duck (female)

ANAS RUFINA.

RED CRESTED DUCK.

Black ; head and upper part of the neck testaceous ; crown reddish (of the male) crested ; wings beneath and at the edge white ; tail brown.

Anas Rufina, Gme. Pallas

Great red headed Duck, Will.

Canard siffleur huppe, Tem. Briss, Buf.

Red crested Duck, Lath.

Crested Whistler, Wood's edit. of Buffon.

It is with pleasure we present our readers with a portrait of the *female* of this species of Duck, which we believe to be the first time it has been noticed as having been taken in this country. The specimen from whence our drawing was made, was killed on Breydon in the month of July, 1818, and is now in the possession of Mr. Youell of Yarmouth, to whose

kindness we are greatly indebted. We are informed that a specimen of the *male* was killed in Norfolk a few years since, and was preserved in the London Museum.

Temminck says that “ the male has the top of the head covered with long silky feathers which form a large crest ; beak long depressed towards the point. Head, cheeks, throat, and upper part of the neck of a reddish brown or bay ; the lower part of the neck, breast, belly and abdomen of a deep black, back, wings, and tail of a light brown ; sides, wing joint, a large spot upon the side of the back, speculum upon the wings and base of the quill feathers white ; beak, legs, and toes of a beautiful red ; nail on the beak white ; webs of the feet black ; irides bright red. Length about two feet.”

“ The female has the top and back of the head, and back of the neck of a deep brown ; the crest not so thick as that of the male ; cheeks, throat and sides of the neck of an ash-coloured white ; breast and sides of a yellowish brown ; belly and abdomen grey ; back, wings and tail brown

with a slight ochreous tint ; no white spots upon the sides of the back ; the speculum upon the wing half greyish white and half light brown, base of the quill feathers brownish white ; beak, legs, and toes reddish brown."

"The *trachea* of the male, which is broad immediately underneath the upper larynx, becomes suddenly very narrow ; then assuming towards the middle a very large diameter, it terminates in narrow rings, the lower larynx is formed of two dilatations, that on the left, which is the largest and most elevated is formed of bony ramifications, covered by a fine membrane."

This Duck inhabits the eastern parts of Europe. It is a bird of passage on the Caspian Sea, in Hungary and Turkey ; less regular in its passage to the great lakes of Switzerland ; is never found upon the shores of the Ocean. Its food is shell fish and aquatic vegetables. In the stomach of the one before us, were found the seeds of the *Ruppa maritima*.

This species according to Pallas inhabits the immense lakes in the deserts of Tar-

tary. It is a solitary bird, seldom going in flocks like the rest of its genus. Latham observes that it is found on the lakes of the Ural mountains, but that it is never seen in other parts of Siberia. Willughby saw it at Rome; and Dr. Shaw met with it in Barbary.





Elmhurst, July 1, 1816.

Anas myroca.

ANAS NYROCA.

CASTANEOUS DUCK,

Olive black; head, throat, breast and flanks chesnut; belly white; rump black; vent snowy.

Anas Nyroca, Gme. Lath.

Tufted Duck. (var.) Lath.

Olive Tufted Duck, Turton

Anas Africana, Gme. Lath.

African Teal and Nyroca Duck, Lath.

La Sarcelle d Egypte, Buff.

Le Nyroca, Sonnini

Anas rufa, Lin.

Anas ferruginea, Gme.

Red duck, Pen.

Ferruginous Duck, Pen. Lath.

Red breasted Duck, Lewin

Castaneous Duck, Mont.

Mr. Pennant, author of a work entitled *British Zoology*, described a bird belonging to this genus, under the title of *Ferru-*

ginous Duck, in the following terms, “The weight was twenty one ounces: the bill is long and flatted, rounded a little at the base, serrated along the edges of each mandible, and furnished with a nail at the end of the upper, the colour of a pale blue. The head, neck, and whole upper part of the bird is of an agreeable reddish brown: the throat, breast, and belly of the same colour, but paler: the legs of a pale blue; but the webs of the feet black. This species was killed in Lincolnshire.” Such is the brief description given of the bird by that Gentleman. In the *Arctic Zoology*, published by the same author, we find in the description of the *Red Duck*, a little difference from that of the *Ferruginous Duck* of the *British Zoology*, to which it refers. It will be observed that no mention is made respecting the difference of sexes, or whether that above described, was male or female.

From the time of Pennant to the present day, no bird has puzzled the Ornithologist more than the *Ferruginous Duck*. Indeed it must be confessed that many of this tribe

(notwithstanding the great improvements made in this delightful study), still remain in great obscurity; it is well known that some species differ so essentially in their plumage, at different ages, and seasons, that Naturalists have been, and will continue to be, at variance with each other, and occasionally with themselves. Dr. Latham originally considered the *Nyroca* as one of the varieties of the *Fuligula*, but, in his latter work he has given it as a distinct species. Other authors have considered Mr. Pennant's bird as the female of some other species, probably that of the *Wigeon*, which in its autumnal plumage is sometimes very rufous; or it may prove to be a young bird of this species, in its first plumage. In this state of doubt we have added to the *Nyroca* the synonyma of those of *Ferruginea*.

Montagu says the Castaneous Duck "is most certainly the Olive tufted Duck of the *British Miscellany*; and we think there can be no doubt that it is the *Nyroca* of Gmelin."

Our reasons for considering the African

Teal as of the same species, is derived from the following remarks of Mr. Bullock, addressed to the Linnæan Society, Nov. 17th. 1812. “ This species of Duck several of which have come within my knowledge, were all purchased at Leadenhall market during the winter season, and were said to come from Lincolnshire. Dr. Latham in his very excellent work on birds, says they inhabit the rivers in Egypt, which, if so, is a remarkable circumstance, as few natives of so warm a country could be supposed to migrate so far north at that season. Buffon figures it in the Planches Enluminées, to which Dr. Latham refers his African Teal. That figure is so good as to leave no doubt of its being the bird ; otherwise the var. A of the *Anas Fuligula* of Lath. Syn. *Anas Nyroca* of Gme. Syst. Nat. and of Latham’s Ind. Orn. ii. 869. 91. might be mistaken for it. Indeed I cannot help thinking that Dr. Lat. has described the same bird twice under different names. In the account of the latter it is said to inhabit the river Don, which is certainly the most probable residence of a bird that visits this country only during winter.”

Since the Castaneous Duck was first noticed as a British species by Montagu, several specimens have been procured in different parts of the Kingdom. Mr. Foljambe has had in his possession seven or eight, varying considerably in plumage; some without white, either in the wings or under parts of the body. Two specimens have been killed near Yarmouth, one of which (from whence our drawing was made,) is at this time in the possession of Mr. Youell of that place.

A male specimen purchased at Leadenhall market, weighed thirty three ounces and three quarters, and measured in length, sixteen inches and a half.

Two females purchased at the same time, were rather larger than the other sex; one of them weighed thirty six ounces; and the other very little less; the length eighteen inches; the alar extent the same.

Temminck describes the old male bird of this species in the following manner. "Beak long, dusky blue, nail black; irides white;* front, neck, breast and sides

* Montagu says, "the irides of both sexes are yellow."

of a very vivid ferruginous red; round the neck a small collar of deep brown, under the lower mandible an angular spot of pure white; back and wings dusky brown reflecting purple; these parts are interspersed with small red dots; speculum white terminated by black; belly and vent pure white; feet and toes bluish ash colour, webs black."

"The female has the head, neck, breast, and sides brown, but all the feathers terminated with light ferruginous; she has no collar on the neck; the feathers of the upper parts dusky with light brown edges, the rest as in the male, but this sex is rather smaller than the other."

"The birds of the first year have the crown of the head dusky brown; all the feathers of the upper parts bordered and terminated by ferruginous brown; the white of the belly shaded with light brown."

This species inhabits the lakes and rivers of the eastern parts of Europe, it is regularly a bird of passage in Germany, it is scarce in Holland and France. It feeds on

insects, small frogs, aquatic plants and their seeds, rarely small fish. Lays nine or ten eggs of a pure white.

We have given a plate of the *trachea* of this species.

ANAS FULIGULA.
TUFTED DUCK.

Crest pendent; body black; belly and wing-spot white.

Anas Fuligula, Lin. Gme.

Anas Cristata, Raii.

Le Morillon, Buf. Briss.

Le petit Morillon, Buf.

Anus Glaucion minus, Briss.

Tufted Duck, Pen. Lath. Mont. Bew.

Le Canard brun, Buf.

Lapmark Duck, Arctic Zool. Lath.

Anas Scandiaca, Gme. Lath.

Brown Duck, Pen.

PROVINCIAL.

BLACK WIGEON.

The Tufted Duck is a plump, round, and short shaped species. Its weight is about two pounds, and it measures in length from sixteen, to eighteen inches.



The Hunt

Anas Fuligula. — Pintail Duck.

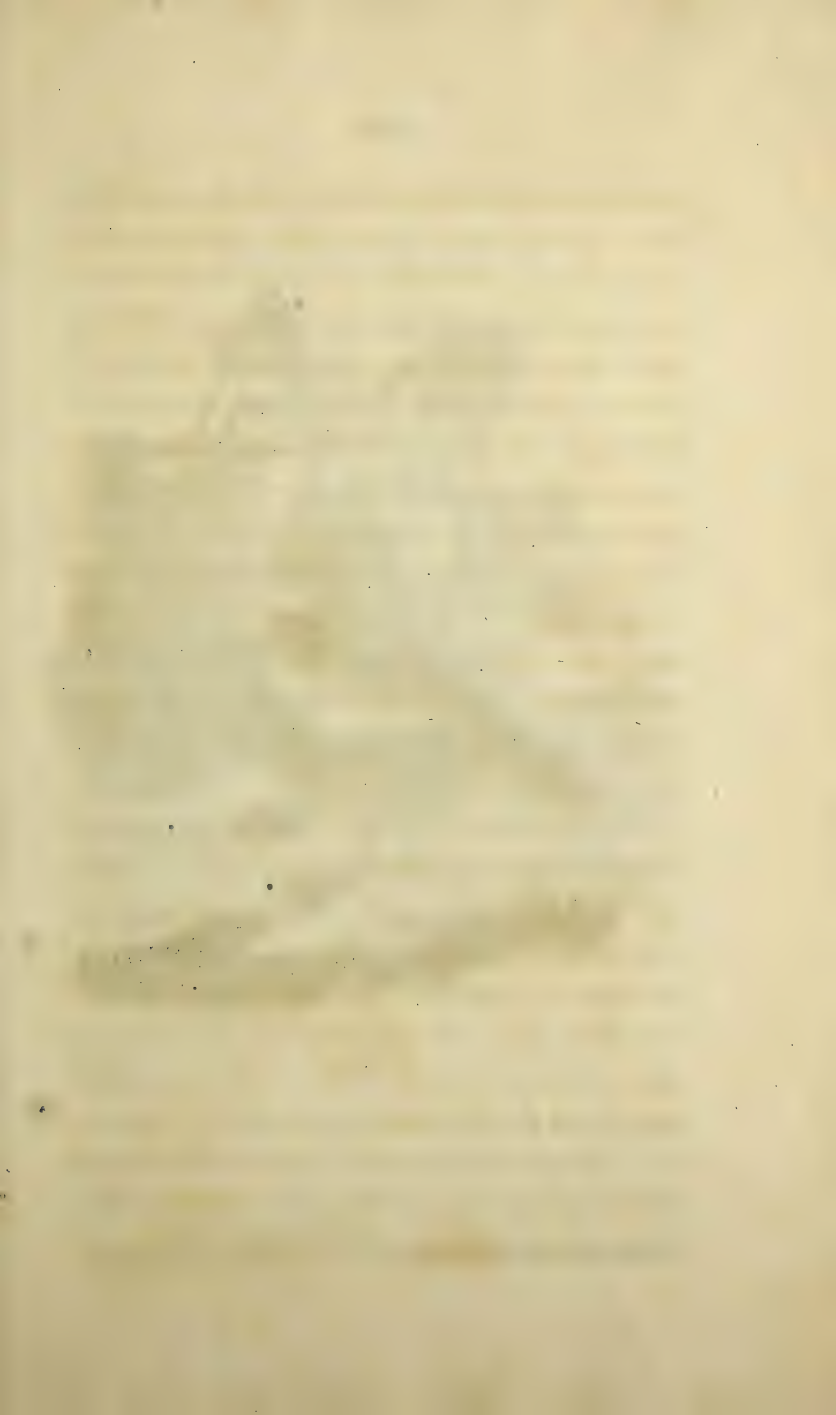


The crest of the old female is shorter than that of the other sex, the head, neck, breast, and upper part of the back are black shaded with deep brown, the remaining part of the back and the wings dull dusky brown, interspersed with small brown spots; upon the breast and sides some large spots of ferruginous brown, the speculum upon the wing smaller than in the male; the beak and feet darker. The young of both sexes have not, before moulting any appearance of a crest; they have a large whitish spot at the side of the beak; some white upon the forehead and sometimes behind the eyes; head, neck, and breast of a dull brown, varied upon the breast with ferruginous brown; the feathers of the back and wings dusky brown bordered with lighter brown; sides ferruginous brown; the speculum small and whitish; abdomen variegated with ash-colour and brown; irides dirty yellow. The young males have the belly of a purer white than the young of the other sex.

The young after moulting lose the white spot at the base of the beak, or have it

very faint; the crest is now apparent, and the plumage becomes darker. In this state of plumage it is the *Lapmark Duck* of Latham, the *Brown Duck* of the British Zoology, and *le Morillon* of Buffon, &c.

The Tufted Duck is an inhabitant of all the northern parts of Europe, and is also found in North America. It is not uncommon with us in winter, and is frequently seen in our fresh waters as late as the latter end of the month of March or beginning of April. They are very difficult to shoot on account of their incessant diving.





Anas Spectabilis.

King Duck.

ANAS SPECTABILIS.

KING DUCK.

Beak compressed at the base with a black feathery keel; head hoary.

Anas Spectabilis, Lin. Gme.

Le Canard a Tete Grise, Buff.

Grey headed Duck, Edwards, Turton.

King Duck, Pen. Lath. Mont.

This species of Duck, according to the Linnæan arrangement of this genus, ought to have followed the history of the Sheldrake, page 208. Temminck in his work on the Birds of Europe, considered the *Anas Spectabilis* as no other than the young of *Anas Mollissima*. The account he gives of that bird is as follows: "The birds of the first year have the crown of the head, cheeks and upper parts of the neck covered with very soft and downy feathers, of an ash-coloured brown, spotted with dark brown; from the

base of the beak, and passing over the eyes is a very large whitish band dotted with black; the lower part of the neck and breast transversely streaked with black and white bands, mixed with reddish ash-colour; the feathers of the upper parts blackish bordered with brown; those of the under parts of a very dark brown, each feather having a whitish or brown margin; the tail of an ash-coloured brown; feet and beak of a dark green; but in many specimens the feet are of a reddish brown. The scapulars straight and rounded at their ends. In this state the bird is the female King Duck of Sparman."

"At the age of two years all these colours develope themselves: some large white patches show themselves upon the neck, breast, top of the back, and upon the wings, the black becomes deep and without spots upon the greater part of the back; the under parts are varied with spots and streaks, red, whitish and black."

"When the bird is three years old the plumage becomes more regular; the white grows pure; the bands on the sides of the

head accurately delineated; the back of the head and cheeks assume a green colour; the back and some of the scapulars are still black; and often some brown and streaked feathers appear, mixed with the white ones of the neck. The bird in this dress is that which has been called the male King Duck.”

Such was the description given by an author, justly considered the most accurate of Ornithologists; in this particular, however it appears that he was mistaken. The King Duck being so extremely rare, and the immature plumage of the Eider Duck at a particular age, being nearly similar to the description given of the other species, undoubtedly led to the error.

In describing the birds met with during the recent voyage to the Arctic Regions, Capt. Sabine makes the following remarks: “ I am indebted to Mr. Skene, Midshipman of the *Isabella*, for the only male specimen of this most beautiful Duck* (*Anas Spectabilis*) which was shot during

* This specimen is in the possession of Josh. Sabine, Esq. who kindly granted us permission to make a drawing from it for our work.

our voyage. They were very numerous on the coast of Greenland in company with the Eider Ducks; but they were too shy to approach the ships, and opportunities of seeking them on shore were very rare and very hurried. Two females were killed, agreeing as well as the male with the descriptions of Authors. It is reasonable to suppose that they are the same number of years in attaining maturity, as the Eider Duck; but the different states of their immature plumage have not as yet been noticed. This is one of the desiderata which it is hoped the next voyage will supply. The rarity of this bird in the milder parts of Europe, and the want of specimens of it in the best collections, have occasioned it to be imperfectly known, except amongst the writers on the ornithology of the northern regions. Temminck in his *Manuel* considers it as the *Anas Molissima* in one of its changes." "It is however noticed in the second edition of his *Manuel*, now preparing for publication, as a distinct species."

Landt in his description of the Feroe Isles

when speaking of this species of Duck, says that "some solitary ones are found now and then, amongst the Eider Ducks, to which they have a pretty close resemblance, only that they are less. This bird is distinguished by its bill, at the root of which there is a high round cartilaginous bunch, which projects from the head, but is somewhat compressed; it is naked, and of a bright red colour, so that it is almost like a comb. Along the summit of it there is a small black stripe of very fine feathers, which divides it as it were into two flat portions. Towards the head this stripe splits into two, one of which proceeds on the one side, and the other on the other, so that they surround the excrescence in two round bows, which descend towards the edge of the upper mandible, and end a little before the extremity of the aperture of the bill."

The female is less than the other sex; the protuberance on the beak not so large, nor so high coloured; the whole plumage brown, the middle of each feather dusky; six of the lesser quills are tipped with

white, which forms a line of white on the wing; the rest of the quills and tail brown.

Montagu says that the King Duck resides chiefly in the northern parts; are plentiful at Hudson's Bay, where they breed on the sides of pools and rivers. The nest is made of sticks and moss, lined with down plucked from their own body. The eggs* are five or six in number, rather less than those of a Goose, of a whitish colour.

It is not unfrequent in the north of Siberia and Kamptschatka, and common in Greenland, where the down is accounted of equal value to that of the Eider Duck, the flesh excellent, and the gibbous part of the beak a delicacy. The skins sewed together are used for winter garments by the natives.

* Mr. Bullock, when he was at the Orkney Isles, found the nest of this bird on a rock, impending the sea; it contained six yellowish-white eggs.

A N S E R E S.

GENUS XXXII.

MERGUS—MERGANSER.

The distinguishing characters of this Genus are—

Bill toothed, slender, cylindrical, hooked at the point.

Nostrils small, oval, in the middle of the bill.

Feet four toed, the outer toe the longest.

Turton in his translation of Linnæus, describe ten species belonging to this genus, three only of which are natives of the British Isles.

The *generic* characters as given by Temminck, are: “ Bill moderate or long, straight, slender, in form of a lengthened cone almost cylindrical, the base of it broad; the point of the upper mandible much curved and terminated by a nail;

the edges of the two mandibles toothed like a saw, the teeth pointing backwards. Nostrils lateral, near the middle of the bill, elliptical, longitudinal, pervious. Legs short; the three front toes entirely webbed, hind toe unconnected, articulated upon the *tarsus*, having a rudiment of a membrane. Wings moderate, the first quill the same length as the second or rather shorter."

Mergansers resemble very much the duck tribe, they live upon the waters, on which they often swim with the whole body submerged, and only the head above water; they dive frequently and with facility, and swim under water with great agility, making use of their wings to assist their motion; they fly swiftly and continue long on the wing. Their food consists principally of fish and amphibious animals; to the first of these they are very destructive. The *young males* are like the *old females*.

MURGUS MERGANSER.**GOOSANDER.**

Sub-crested; white; head, neck, upper part of the breast and wings glossy-black; tail cinereous.

Mergus Merganser, Lin. Gme.

Grand Harle, Temm.

Le Harle, Buffon

Goosander, Pen. Lath. Bew. Mont.

Mergus Castor, Lin. Gme.

La harle femelle, Buff.

Dun Diver, Pen. Lath. Bew. Mont.

Mergus rubricæpillus (var.) Gme.

PROVINCIAL.**DIVING GOOSE, SPARLING FOWL,
JACK SAW.**

The male of this species measures from two feet, to two feet four inches in length, and about three feet four inches in breadth.

The female measures twenty seven inches in length, and thirty-five in breadth.

The great dissimilarity in the plumage of the two sexes, has occasioned some authors to consider, and consequently to describe this bird as two distinct species; the *male* under the title of *Goosander*, and the female under that of the *Dun-Diver*.

To make quotations of the reasons given in favour of this opinion in various works, would be quite superfluous, as it would extend this article to an unnecessary length. We shall content ourselves with laying before our readers, the following extracts from Montagu: in the Supplement to his Ornithological Dictionary, under the head of Dun Diver, he says “ Nothing has perplexed us more than the discrepancy of opinion concerning some of the Mergansers; nor can we after so many years indefatigable search for the truth offer any thing satisfactory from personal observation; but we are induced to continue in our former opinion, that the Dun Diver and Goosander are really distinct, not having heard any thing adduced to alter that opinion. If indeed we are to rely on the transactions of public



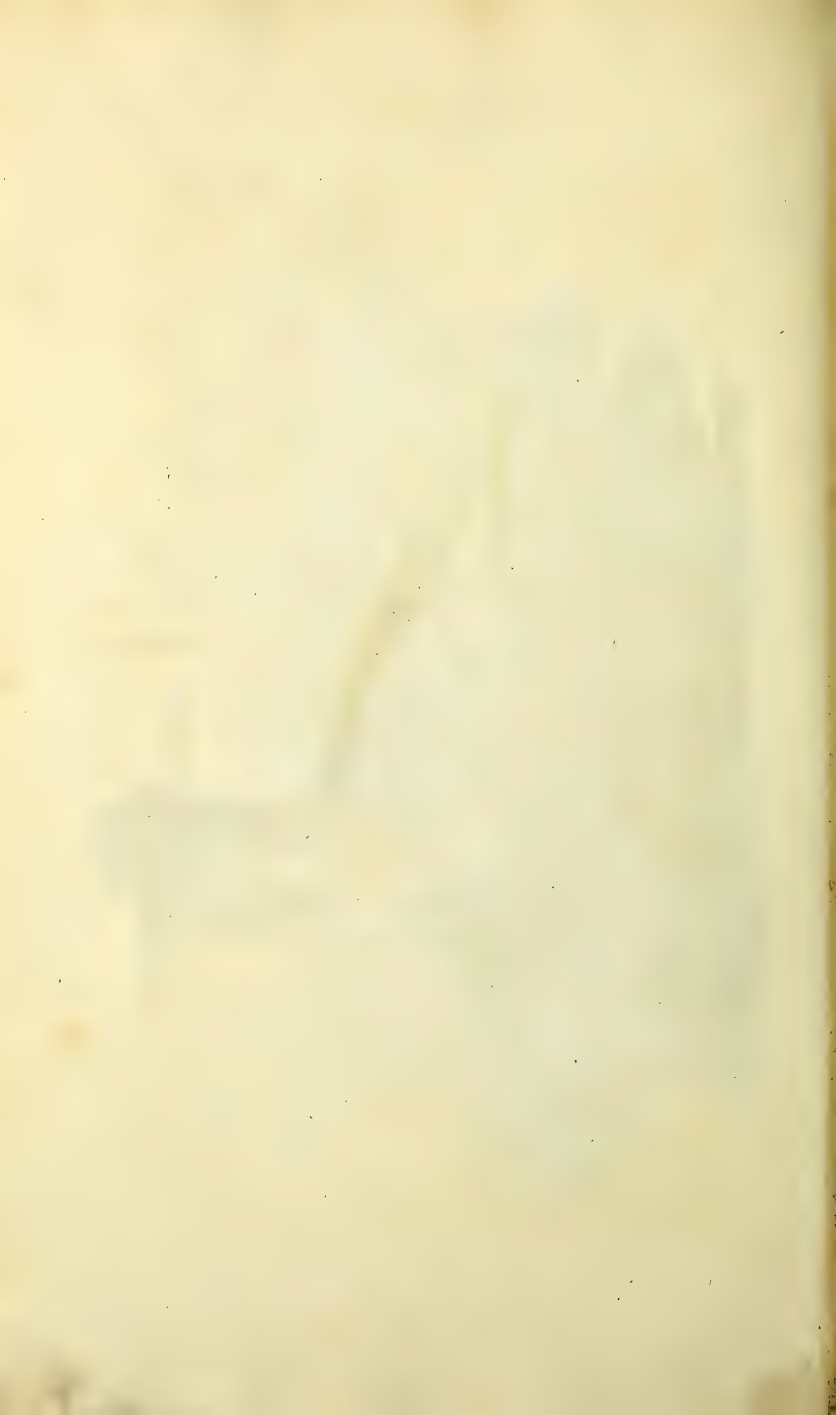


Merganser — Gavia (immature Male)



Mergus Merganser — *Male* *Common*

I Hunt



bodies, we may produce the *Berlin Transactions* as an evidence of the fact. In the fourth vol. of that work, tab. 18. fig. 3, is a representation of the *trachea* of the Goosander: and in the third vol. tab. 7, fig. 5, is given the *trachea* of the Dun Diver. The difference between these in structure is so material, that they cannot possibly belong to the same species."

"These not only differ in the bony labyrinth at the bottom of the *trachea*, but that which belongs to the Goosander has two enlargements about the middle; whereas only one enlargement belongs to the Dun Diver."

Again, under the head of the Goosander, the same author observes: "In the 8th vol. of the *Linnean Transactions*, Mr. Simmonds remarks that there is so much similarity in the structure of the *Mergus Merganser* and *M. castor*, even in the intestines as well as in the *trachea*, vertebræ of the neck, and number of tail feathers (which in both are eighteen) to warrant a conclusion that they are the same, differing only in age or sex. but

this information does not advance us one step towards clearing up the long contested point. It has long been known that males in the plumage of *Mergus castor*, or Dun Diver have been proved by dissection; and we have before been told that they possessed a *tracheal* labyrinth similar to that of *Mergus Merganser*, or Goosander; but we should have been glad to have been informed whether in the *trachea* itself there had been one or two enlargements; for otherwise we gain no additional knowledge."

He then gives a description (from Wil-
lughby and others) of the *trachea* of the
Goosander, and continues thus: " These
appears to be incontestable facts of the
trachea of the Goosander possessing two
enlargements; now, as no naturalist has
yet described such an appearance in any
Merganser of different plumage, we are
yet in the dark as to the immature male of
this species, as well as the female."

Such were the reasons given by an author
of the first respectability, and whose opi-
nions will deservedly continue to have a

great weight with Ornithologists. It ought to be observed that at the time Montagu published his work, the female of the *Red-breasted Merganser* was but imperfectly known; it is now ascertained that the females of the two species are so similar in plumage to each other as scarcely to be distinguished; this will readily account for the error. It is well known that independent of the *labyrinth*, the *trachea* of the Goosander possesses two enlargements, but Montagu does not appear to have noticed in his remarks, that the *Red-breasted* species possess only one enlargement. We have no hesitation in believing that the figure referred to (by Montagu,) in the Berlin Transactions, is that of the *trachea* of the latter bird; we were justified in this opinion upon dissecting a fine specimen in the plumage of the *Dun-Diver*, sent us by Captain Cooper of Bungay, it proved to be a male, and the *trachea* exactly corresponded with the description given by Willughby of that part of the *Goosander*; we made a

drawing* from it of the size of nature, with the intention of forwarding it to G. Montagu, Esq. but upon making inquiry, we found that he had departed this life a short time before.

Our figure of the immature male† is made from the same specimen, the mature bird is from a specimen in the collection of E. Lombe, Esq.

The beautiful rose-coloured tint to be seen upon the lighter parts of the plumage of the male when recently killed, is very apt to fly off after it has been preserved, leaving those parts quite white. The crest of the female is longer and more slender than the same part of the male.

The *males* during the first year scarcely differ from the *females*, at the age of one year they may be distinguished by black spots upon the white of the throat; the red of the neck is at that time terminated

* See fig. 1. 1. plate 2. The plate not being of sufficient length to admit it of the full length, we were obliged to divide it. Fig. 2. is the reverse of the labyrinth.

† We saw a specimen (in the collection of Mr. Seaman of Ipswich,) of this bird in the change of plumage, which must remove all doubt upon the subject.

by a darker colour; black feathers shew themselves upon the top of the head and white ones appear upon the wing coverts.

Temminck observes that “ the female and young males of this species, are with difficulty distinguished from those of the Red-breasted Merganser, but they will not be mistaken if attention be paid to the shape and colour of the speculum upon the wings, which in this, is of a single colour; whereas it is transversely streaked with ash colour in the females, and with dusky in the young males of the Red--breasted Merganser.”

“ The female lays twelve or fourteen whitish eggs, nearly equally pointed at both ends, among the stones at the water’s edge, in bushes, or in hollow trees.”

According to Acerbi, this species is common in some parts of Finland, during the breeding season; and their eggs are much coveted by the natives, who place decayed trees that are hollow near the banks of the river, which these birds enter and there deposit their eggs to the number of twenty : these the Finlanders take away

from time to time, but always leave two or three at least, in order to continue the breed.

The Goosander feeds on fish, for which it dives with great celerity, and holds its slippery prey with great security by means of its toothed bill. It takes and swallows fish much larger than can enter entire into its stomach: the head first lodges in the œsophagus, and is digested before the body can descend.

This bird inhabit the Arctic regions of the new and old world; in temperate climes it is regularly a bird of passage in winter; during that season it is pretty abundant upon the coast of France, Holland, and more abundant in hard frosts upon the lakes of the interior; is common in Germany even as far as the south of that country; they pass the whole year in the Orkneys, yet seldom appear in Great Britain, except in very severe seasons.





Mergus serrator

Red-browed Merganser

MERGUS SERRATOR.

RED-BREASTED MERGANSER.

Crest pendent; breast variegated with reddish; collar white; tail feathers brown varied with cinereous.

Mergus Serrator, Lin. Gme. Lath.

Mergus Cristatus, Briss.

Le Harle, Huppe, Buff. Sonn.

Red-breasted Merganser, Pen; Lath.
Bew. Mont.

PROVINCIAL.

HARLE, RED-BREASTED GOOSANDER, LESSER-TOOTHED DIVER, SERULA.

The portrait accompanying this article, was taken from a specimen in the collection of E. Lombe, Esq.

The *male* of this species measures one foot nine inches in length, and two feet seven inches in the expansion of its wings.

The young males scarcely differ in plumage from the old female, which, as we have before remarked, is so similar in appearance to the *female*, and young *male* of the *Goosander*, as to be distinguished with difficulty, (see page 360.)

The Red-breasted Merganser is not common in Britain, particularly in the southern parts of the island; but they are met with in great flocks at Hudson's Bay and Newfoundland, at which places numbers of them breed.*

The nest is said to be made with dry grass, lined with down; the eggs are white; sometimes as many as thirteen in a nest, about the size of those of a Duck. They are also found in Russia, Greenland and other northern parts of the world, and sometimes on the coasts of the Mediterranean Sea.

For a representation of the trachea of this species, see fig. 1, 1, 2, plate 1.

* Some authors assert that they breed in some of the Lochs in Scotland.



Mergus Allbellus. — Linn.



Mergus Albellus (Fav.) - Female Young.

MERGUS ALBELLUS.
SMEW.

Crest pendent; hind-head black; body white; back and temples black: wings variegated.

Mergus albellus, Lin Gme. Lath.

La Piette, Buff. Sonn.

Mergus Rheni, Raii. Will.

Mergus major, *Cirrhat*us, Raii.

Smew or White Nun, Pen. Lath. Bew, Mont.

Mergus minutus, Lin. Gme.

Mergus Stellatus, Briss.

Mergus glacialis, Raii. Pen. &c.

Mergus cristatus minor, Briss.

Red headed Smew, or Lough Diver, Bew.

Red headed Smew, or Weesel Coot, Bew.

Minute Merganser, Lath. Lew. Mont.

Lough-diver, Bew.

The male of this species measures seventeen inches in length and twenty six and a half inches in breadth.

The young male resemble its female

parent, and is at least two years before it arrives at maturity.

The female is less in size than the other sex, and differs as much in appearance from it as any of the foregoing species. As we have given Portraits of both sexes, and the head of the immature male in the change of plumage, it is only necessary to observe, that the description given by Montagu, Bewick, &c. under the articles *Minute Merganser*, *Red-headed Smew*, and *Mergus minutus*, ought to be considered as relating to the *female*; and that, given by Bewick, under *Lough-Diver*, to the *immature male* of this species.

This is by far the most plentiful species of the Merganser frequenting our coasts and fresh waters in the winter. Their habits and manners are like the rest of the genus; fish is their principal food, which they eagerly hunt after, both at sea and in the fresh water lakes, as necessity or inclination impels them to visit the one or the other.







